

**IN THE UNITED STATES DISTRICT COURT FOR THE
EASTERN DISTRICT OF VIRGINIA
NORFOLK DIVISION**

Latasha Holloway, et al.,

Plaintiffs,

v.

City of Virginia Beach, et al.,

Defendants.

Civil Action No. 2:18-cv-0069

Defendants' Memorandum of Law in Support of Motion for Summary Judgment

EXHIBIT SIX

Deposition Transcript of Douglas M. Spencer, Ph.D.



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Transcript of Douglas Spencer, Ph.D.

Date: October 1, 2019

Case: Holloway, et al. -v- City of Virginia Beach, et al.

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IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA

-----X

LATASHA HOLLOWAY, et al., :

Plaintiffs, :

v. : Case No.

CITY OF VIRGINIA BEACH, : 2:18-cv-00069

et al., :

Defendants. :

-----X

Videotaped Deposition of

DOUGLAS M. SPENCER, Ph.D.

Washington, D.C.

Tuesday, October 1, 2019

10:03 a.m.

Job No.: 262152

Pages: 1 - 161

Reported by: Marney Alena Mederos, RPR, CRR

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

2

1 Videotaped Deposition of DOUGLAS M.
2 SPENCER, Ph.D., held at the law offices of:

3
4 CAMPAIGN LEGAL CENTER
5 1411 K Street, N.W.
6 Washington, D.C. 20005
7 (202) 736-2200
8
9
10

11 Pursuant to notice, before Marney Alena
12 Mederos, Registered Professional Reporter,
13 Certified Realtime Reporter, and Notary Public
14 in and for the District of Columbia.
15
16
17
18
19
20
21
22

Transcript of Douglas Spencer, Ph.D.
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3

A P P E A R A N C E S

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4

1 A P P E A R A N C E S C O N T I N U E D

2 O N B E H A L F O F T H E D E F E N D A N T S :

3 C H R I S T O P H E R B O Y N T O N , E S Q U I R E

4 J O S E P H M . K U R T , E S Q U I R E

5 G E R A L D L . H A R R I S , E S Q U I R E

6 V I R G I N I A B E A C H C I T Y A T T O R N E Y ' S O F F I C E

7 2 4 0 1 C o u r t h o u s e D r i v e

8 V i r g i n i a B e a c h , V i r g i n i a 2 3 4 5 6

9 (7 5 7) 3 8 5 - 8 8 0 3

10
11
12 A L S O P R E S E N T :

13 M I L E S T A G , V I D E O G R A P H E R

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Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

5

C O N T E N T S

EXAMINATION OF DOUGLAS M. SPENCER, Ph.D.: PAGE

By Mr. Boynton 8

E X H I B I T S

(Attached to transcript)

SPENCER DEPOSITION EXHIBIT PAGE

Exhibit 1 Expert Report 7

Exhibit 2 Response to Report by 7

Dr. Quentin Kidd

Exhibit 3 Plaintiffs' Expert Witness 13

Disclosures

Exhibit 4 Webpage 13

Exhibit 5 Data 128

Exhibit 6 Chart 1 - Applying 136

Dr. Spencer's Data to

Equivalence Test of Cohesion

for Candidate Aaron Rouse

Exhibit 7 Chart 1 - Applying 140

Dr. Spencer's Data to

Equivalence Test of Cohesion

for Candidate Aaron Rouse

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Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

6

E X H I B I T S C O N T I N U E D

Exhibit 8 Chart 1. Spencer's Prong 2 144
and 3 Racially Polarized Voting
Analysis (Rebuttal Report)

Exhibit 9 Handwritten calculations 149

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Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

7

P R O C E E D I N G S

(Spencer Exhibits 1 and 2 were marked
for identification and attached to the
transcript.)

THE VIDEOGRAPHER: Here begins Disc 10:03:08
Number 1 in the videotaped deposition of Douglas 10:03:09
Spencer in the matter of Holloway, et al., versus 10:03:14
City of Virginia Beach, et al., in the United 10:03:17
States District Court for the Eastern District of 10:03:23
Virginia, Case Number 2:18-cv-00069. 10:03:23

Today's date is Tuesday, October 1st. 10:03:35
The time on the video monitor is 10:02 a.m. The 10:03:38
videographer today is Miles Tag representing 10:03:44
Planet Depos. This deposition is taking place at 10:03:47
1411 K Street, Northwest, Washington, D.C. 20005. 10:03:51

Would counsel please voice identify 10:04:00
themselves and state whom they represent. 10:04:02

MR. BOYNTON: Chris Boynton for the 10:04:04
Defendants. 10:04:06

MR. KURT: Joseph Kurt for the 10:04:07
Defendants. 10:04:08

MR. HARRIS: Gerald Harris for the 10:04:11

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Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

8

1	Defendants.	10:04:12
2	MS. HARLESS: Annabelle Harless for the	10:04:12
3	Plaintiffs.	10:04:12
4	MR. HEBERT: Joseph Hebert for the	10:04:15
5	Plaintiffs.	10:04:16
6	THE VIDEOGRAPHER: The court reporter	10:04:17
7	today is Marney Mederos also representing Planet	10:04:18
8	Depos.	10:04:18
9	Will the reporter please swear in the	10:04:19
10	witness.	10:04:19
11	THE REPORTER: Raise your right hand,	10:04:20
12	please.	10:04:20
13	Whereupon,	10:04:20
14	DOUGLAS M. SPENCER, Ph.D.	10:04:20
15	being first duly sworn or affirmed to testify to	10:04:27
16	the truth, the whole truth, and nothing but the	10:04:27
17	truth, was examined and testified as follows:	10:04:27
18	EXAMINATION BY COUNSEL FOR DEFENDANTS	10:04:28
19	BY MR. BOYNTON:	10:04:28
20	Q Dr. Spencer, good morning.	10:04:31
21	A Good morning.	10:04:32
22	Q My name is Chris Boynton, and all of my	10:04:33

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

9

1	colleagues, Joe and Gerry here, we represent the	10:04:36
2	Defendants in this case.	10:04:39
3	We understand that you have been	10:04:40
4	identified as an expert witness in this case, and	10:04:41
5	we have received two reports that were authored by	10:04:43
6	you.	10:04:46
7	Is that correct, sir?	10:04:47
8	A That's correct.	10:04:48
9	Q Okay. We'll get to those in a moment.	10:04:48
10	Would you please tell us your full	10:04:51
11	name?	10:04:52
12	A Yep. Douglas Spencer.	10:04:53
13	Q And what is -- you don't have a middle	10:04:54
14	initial?	10:04:56
15	A I have a middle initial M.	10:04:56
16	Q M, okay.	10:04:58
17	And where do you presently reside?	10:04:58
18	A I presently reside in Chicago,	10:05:00
19	Illinois.	10:05:01
20	Q Chicago.	10:05:01
21	And, again, I don't intend to	10:05:03
22	disseminate it outside the litigation, but what's	10:05:04

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

10

1	your residence address?	10:05:06
2	A 5825 South Dorchester Avenue,	10:05:08
3	Apartment 10W, Chicago, 60637.	10:05:12
4	Q Thank you.	10:05:16
5	And what is your professional address?	10:05:16
6	A My professional address is 65 Elizabeth	10:05:17
7	Street, Hartford, Connecticut 06105.	10:05:20
8	Q And by whom are you employed, sir?	10:05:24
9	A The University of Connecticut.	10:05:26
10	Q I see.	10:05:27
11	Before we get started -- or we're	10:05:27
12	getting started, I guess -- I'm going to show you	10:05:29
13	two documents that I would ask you to peruse.	10:05:32
14	Take as much time as you need. I just want to	10:05:34
15	make sure they are true and complete copies, first	10:05:37
16	Exhibit 1, which was the original report that we	10:05:39
17	received under your name, and then Exhibit 2 is	10:05:41
18	the rebuttal report that we received also under	10:05:45
19	your name.	10:05:48
20	Do they appear to be accurate and	10:06:07
21	complete copies of your two reports?	10:06:09
22	A They do.	10:06:11

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

11

1	Q	Okay. Thank you.	10:06:11
2		A couple of things. Have you ever been	10:06:12
3		deposed before?	10:06:15
4	A	I have one time.	10:06:16
5	Q	Okay. Fair enough.	10:06:17
6		So it's relatively new in your life,	10:06:18
7		so -- and I know you are a licensed attorney, so	10:06:20
8		I'm not trying to patronize you, but I will go	10:06:23
9		through a couple ground rules.	10:06:24
10		First of all, it would be helpful if	10:06:25
11		you respond verbally to all the questions. The	10:06:27
12		court reporter can't take down nods and gestures,	10:06:30
13		and the infamous "uh-huh" versus "huh-uh" is	10:06:32
14		unintelligible on a transcript.	10:06:36
15		Second, if at any point I ask an	10:06:37
16		unclear question, please let me know. I'll be	10:06:39
17		happy to rephrase.	10:06:41
18		Third, if you've given an answer that	10:06:42
19		at some point appears inaccurate or incomplete	10:06:44
20		upon later reflection, just speak up and we'll	10:06:44
21		correct the record going forward.	10:06:48
22		And, finally, if you will give me the	10:06:50

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

12

1	courtesy of completing my question, and then I	10:06:52
2	will give you the courtesy of completing your	10:06:55
3	answer, it will allow the court reporter to not	10:06:57
4	have to shift voices any more than necessary.	10:06:59
5	Does that all work for you, sir?	10:07:02
6	A That works for me, yep.	10:07:03
7	Q Thank you.	10:07:05
8	I'm going to show you first -- and	10:07:05
9	we've got the two exhibits marked, but prior to	10:07:07
10	even your initial expert report which was dated	10:07:10
11	July 15th, we received an expert witness	10:07:14
12	designation, which I'll put a copy of you in	10:07:17
13	front -- a copy in front of you.	10:07:19
14	I'd ask you to review that just with	10:07:20
15	respect to the information pertaining to you.	10:07:22
16	A Okay.	10:07:34
17	Q Does that appear to be accurate for --	10:07:34
18	to the extent it describes your background and	10:07:36
19	profession?	10:07:39
20	A Yes, it does.	10:07:40
21	Q Okay. Fair enough.	10:07:41
22	MR. BOYNTON: I'd ask that we go ahead	10:07:42

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

13

1 and mark that as Exhibit 3 just for reference

10:07:44

2 purposes.

10:07:46

3 (Spencer Exhibit 3 was marked for
4 identification and is attached to the transcript.)

10:07:46

10:07:51

5 BY MR. BOYNTON:

10:07:51

6 Q In that Expert Witness Disclosures,
7 sir, there is a referenced link?

10:08:00

10:08:01

8 A Yep.

10:08:07

9 Q I would ask you to look at that.

10:08:08

10 I will represent to you that I have
11 printed a copy, clicking through that link or
12 typing that link into my browser, and this was the
13 page that came up.

10:08:10

10:08:12

10:08:16

10:08:19

14 A That looks correct.

10:08:20

15 Q Does that appear to be an accurate copy
16 of that webpage describing you as Professor of Law
17 and Public Policy at UConn School of Law?

10:08:22

10:08:24

10:08:27

18 A Yes.

10:08:31

19 MR. BOYNTON: Okay. I would ask, then,
20 that we go ahead and make that Exhibit 4 today.

10:08:31

10:08:31

21 (Spencer Exhibit 4 was marked for
22 identification and is attached to the transcript.)

10:08:34

10:08:34

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

14

1	BY MR. BOYNTON:	10:08:40
2	Q Do those two documents, Exhibit 3 --	10:08:48
3	Exhibits 3 and 4, amplify your qualifications and	10:08:50
4	your curriculum vitae that are attached to your	10:08:54
5	initial expert report?	10:08:58
6	A I think they represent them. I don't	10:09:00
7	know what you mean by "amplify."	10:09:02
8	Q Is there anything inconsistent? I	10:09:04
9	understand that your statement of qualifications	10:09:06
10	together with your CV is multi-pages and probably	10:09:07
11	has more detail to it.	10:09:10
12	I'm just asking if those two documents	10:09:12
13	are -- are inconsistent with your statement of	10:09:14
14	qualifications or your CV in any way?	10:09:19
15	A I don't think they're inconsistent, no.	10:09:21
16	Q Perhaps just not as complete?	10:09:24
17	A Yeah, not as complete.	10:09:25
18	Q Fair enough.	10:09:27
19	You can put them down. I just was --	10:09:27
20	thank you very much.	10:09:30
21	So describe to me your area of	10:09:33
22	expertise in your own words.	10:09:35

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

15

1	A	So I've been asked to look at racially	10:09:38
2		polarized voting in Virginia Beach. My expertise	10:09:42
3		in this matter comes from my Ph.D. training, some	10:09:44
4		of the classes that I've taught, training that I	10:09:48
5		received in empirical methods and statistics	10:09:51
6		outside of the Ph.D., I guess, since graduating.	10:09:54
7		I think that's particularly the relevant parts to	10:09:57
8		this.	10:10:00
9	Q	Do you consider yourself a political	10:10:01
10		scientist?	10:10:03
11	A	I do.	10:10:04
12	Q	Do you consider yourself a political	10:10:04
13		historian?	10:10:06
14	A	I do not.	10:10:07
15	Q	Do you consider yourself a demographer?	10:10:08
16	A	I do not.	10:10:11
17	Q	Okay. With respect to the scope of	10:10:11
18		your testimony here today and the scope of your	10:10:12
19		preparation of an expert report and rebuttal	10:10:18
20		report, what was the scope of your assignment	10:10:21
21		prior to July 15th?	10:10:24
22	MS. HARLESS:	Objection to form.	10:10:27

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

16

1	MR. BOYNTON: I can rephrase it.	10:10:28
2	BY MR. BOYNTON:	10:10:29
3	Q What were you asked to do -- I mean,	10:10:29
4	what -- what -- there's a Purpose and Summary	10:10:31
5	page, which is page 3 of your initial report.	10:10:36
6	A Yep, I see it.	10:10:41
7	Q I'd ask you to review it.	10:10:42
8	A Yes.	10:10:53
9	Q As a shorthand, were you asked to	10:10:53
10	review Gingles factors 2 and 3 for purposes of	10:10:58
11	this litigation?	10:11:02
12	A Essentially, yes.	10:11:04
13	Q Did you provide any expert opinions as	10:11:05
14	to Gingles factor 1, the ability to draw certain	10:11:07
15	maps with certain demographic groups?	10:11:10
16	A So part of this summary does not	10:11:13
17	foresee some analysis I did about the performance	10:11:16
18	of some illustrative districts. I did not draw	10:11:18
19	those districts or have anything to do with kind	10:11:22
20	of building those up, just evaluating Gingles	10:11:24
21	prong 2 and 3 in those districts.	10:11:27
22	Q You're not intending to offer expert	10:11:30

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

17

1	testimony as to the drawing of maps, but you might	10:11:31
2	offer testimony as to the performance of the maps	10:11:33
3	drawn by others?	10:11:35
4	A That's correct.	10:11:36
5	Q Okay. Now, I am going to represent to	10:11:36
6	you that I understand Gingles factor 2 to be a	10:11:40
7	determination of whether a racial or language	10:11:44
8	minority group is politically -- politically	10:11:48
9	cohesive in that its members tend to vote	10:11:48
10	similarly.	10:11:54
11	Is that a fair definition for purposes	10:11:55
12	of your work?	10:11:56
13	A Yeah.	10:11:57
14	Q Okay. And I interpret Gingles 3 for	10:11:57
15	purposes of today as a determination of whether	10:12:01
16	the majority vote sufficiently as a bloc to enable	10:12:04
17	it to usually defeat the racial or language	10:12:08
18	minority group's preferred candidates.	10:12:11
19	Is that a fair representation of	10:12:14
20	Gingles 3 for purposes of your work?	10:12:16
21	A I think that's a fair representation.	10:12:18
22	Q Thank you.	10:12:20

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

18

1	Were you asked to provide any opinions	10:12:32
2	in this case with regard to the Senate Factors or	10:12:34
3	the totality-of-the-circumstances analysis?	10:12:36
4	A I was not.	10:12:38
5	Q Okay. So we can fairly limit the scope	10:12:39
6	of your testimony today to Gingles 2 and 3?	10:12:43
7	MS. HARLESS: Objection to form.	10:12:45
8	MR. BOYNTON: I -- I can rephrase.	10:12:47
9	BY MR. BOYNTON:	10:12:48
10	Q Is -- do you intend to offer opinions	10:12:49
11	in this case outside of Gingles 2 and 3 save and	10:12:51
12	except for the performance of the -- the maps	10:12:55
13	drawn by others?	10:12:59
14	A No, I don't think so.	10:13:03
15	Q Okay. Fair enough.	10:13:05
16	Returning, then, to your CV, just so I	10:13:12
17	can have a better understanding of your career	10:13:14
18	evolution.	10:13:19
19	A Yeah.	10:13:21
20	Q And take a moment to get to it. I know	10:13:21
21	it's a pretty thick report, and I think we're on	10:13:24
22	the same page. It has your name at the top,	10:13:27

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

19

1	Contact, Academic Positions; is that correct?	10:13:29
2	A That's correct.	10:13:32
3	Q I have it identified as page 1 with	10:13:32
4	respect to that series of documents within your	10:13:34
5	packet?	10:13:36
6	A That's correct.	10:13:38
7	Q Okay. So you graduated from Columbia	10:13:38
8	University with your Bachelor of Arts in	10:13:41
9	philosophy in 2004; is that correct?	10:13:44
10	A That's correct.	10:13:46
11	Q Did you do anything from a political	10:13:46
12	science study area at Columbia University?	10:13:48
13	A I took political science courses, but	10:13:53
14	it wasn't my major.	10:13:55
15	Q Was it a minor?	10:13:56
16	A It wasn't a minor.	10:13:57
17	Q Was it a concentration of any kind?	10:13:58
18	A No.	10:14:00
19	Q Okay. So what next -- and you	10:14:01
20	graduated in 2004. What next informs your	10:14:03
21	professional expertise as it relates to this	10:14:09
22	matter in the sequence of time of your career?	10:14:11

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

20

1	Did you go straight to the Goldman School of	10:14:17
2	Public Policy, or did you take some time --	10:14:18
3	A No, I did not. I spent two years doing	10:14:20
4	other work. So one of the -- work that I did that	10:14:24
5	was relevant to this was, while living in	10:14:26
6	Thailand, I was a monitor of the election -- their	10:14:29
7	parliamentary election, which was not a political	10:14:35
8	science exercise, but it was my involvement and	10:14:39
9	first exposure to learning about the process of	10:14:41
10	elections.	10:14:43
11	Q What prompted you to be a monitor in	10:14:44
12	Thailand?	10:14:46
13	A Opportunity and interest. I was living	10:14:47
14	there, and the Asian Network for Free Elections	10:14:49
15	was looking for monitors, so I --	10:14:52
16	Q Was -- I'm sorry.	10:14:54
17	A So I responded to a call, I was	10:14:55
18	trained, and I went and par- -- participated as a	10:14:57
19	monitor.	10:14:59
20	Q Was it a paid position?	10:15:00
21	A It was not.	10:15:01
22	Q Okay. And did you have, other than	10:15:02

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

21

1	that training, any particular expertise in	10:15:03
2	election monitoring at that point in time?	10:15:06
3	A I did not.	10:15:09
4	Q Okay. Tell me about that training.	10:15:09
5	A That training was a learning exercise	10:15:11
6	about local laws and customs, what to expect, what	10:15:13
7	to document. So we were giving forms to fill out,	10:15:16
8	interviews with people who were leaving the	10:15:22
9	polling station, monitoring election officials	10:15:24
10	during the day, how they conducted themselves,	10:15:27
11	when the polling box was open whether it was	10:15:28
12	locked and secured, things like that.	10:15:32
13	Q What did you understand to be the	10:15:33
14	purpose of that monitoring effort?	10:15:35
15	A The purpose of the monitoring effort	10:15:36
16	was this organization of Asian states had an	10:15:38
17	organization that was reviewing each others	10:15:41
18	elections for transparency. There was a report	10:15:47
19	that was published about how the elections were	10:15:50
20	conducted, I think, for review by their election	10:15:53
21	boards for better service going forward.	10:15:56
22	Q Did you publish anything formally as a	10:15:58

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

22

1	result of that effort?	10:16:00
2	A Not under my own name, no.	10:16:02
3	Q You provided information to others for	10:16:04
4	their --	10:16:06
5	A That's right.	10:16:07
6	Q -- assimilation?	10:16:07
7	A It went into a report.	10:16:08
8	Q Fair enough.	10:16:10
9	What -- what next sequentially in your	10:16:11
10	career informed your background or expertise as a	10:16:14
11	political scientist?	10:16:15
12	A So when I arrived at Berkeley to earn a	10:16:16
13	Master's of Public Policy degree in 2008, that's	10:16:19
14	when I started my formal graduate training in	10:16:22
15	political economics. So I took courses in	10:16:25
16	political science and economics, I did a project	10:16:28
17	that looked at the queuing of people at polling	10:16:33
18	stations at elections.	10:16:38
19	Q You received a Master's in Public	10:16:40
20	Policy from University of California, Berkeley in	10:16:41
21	2008, correct?	10:16:44
22	A That's correct.	10:16:45

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

23

1	Q	What was -- was there any concentration	10:16:45
2		within that school or that master's program?	10:16:47
3	A	Nope.	10:16:51
4	Q	What generally was your course of	10:16:52
5		study? Describe it, if you can.	10:16:53
6	A	So there -- there's a core set of	10:16:57
7		courses about quantitative statistical training,	10:17:01
8		there's a series of courses in economic analysis	10:17:04
9		of public policy, and then there were training in	10:17:08
10		law and elective courses that I took in political	10:17:12
11		science and the law school.	10:17:17
12	Q	And then you ultimately went to the	10:17:20
13		Berkeley Law School, correct?	10:17:22
14	A	I did.	10:17:23
15	Q	And that was a full three-year program?	10:17:24
16	A	It's a three-year program.	10:17:26
17	Q	Was it a hybrid program at that point,	10:17:27
18		or did you go to pure law school for three years?	10:17:29
19	A	I was attending multiple programs at	10:17:32
20		the same time, but I did not earn a joint degree,	10:17:35
21		meaning I did them sequentially and did not earn	10:17:39
22		crossover credits, but I was taking double class	10:17:43

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

24

1	loads.	10:17:47
2	Q I see.	10:17:47
3	So in addition to taking a full	10:17:47
4	three-year J.D. course load, you were taking	10:17:48
5	jurisprudence and social policy classes from 2008	10:17:51
6	to 2011?	10:17:56
7	A Yeah, from 2009 is when I entered the	10:17:57
8	JSP, the jurisprudence and social policy program.	10:18:01
9	Q Fair enough. Thank you.	10:18:02
10	Any concentration in your law	10:18:03
11	curriculum?	10:18:05
12	A For J.D., no.	10:18:07
13	Q Any concentration in your jurisprudence	10:18:13
14	and social policy doctoral program?	10:18:16
15	A Yes. My concentration there was	10:18:19
16	political science.	10:18:21
17	Q Okay. And what did you write your	10:18:22
18	dissertation on?	10:18:23
19	A My dissertation title was Regulating	10:18:24
20	Elections, and it was political science -- a	10:18:27
21	series of four political science articles that	10:18:32
22	looked at different aspects of the law of the	10:18:34

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

25

1 political process.

10:18:37

2 Q Did you have a central thesis that you
3 were seeking to prove or advance?

10:18:38

10:18:40

4 A The central thesis for all of these was
5 trying to identify what the field of election law
6 is and whether it maps onto political science
7 theories about what elections should be.

10:18:42

10:18:45

10:18:48

10:18:52

8 Q What did you conclude?

10:18:54

9 A I concluded that there is a uniform
10 area of election law that's unified by a whole
11 bunch of political science literature.

10:18:56

10:18:58

10:19:03

12 Q Can you explain to me your study of
13 queuing in elections?

10:19:05

10:19:09

14 A Sure. It was a field study. We
15 recruited -- I don't have the exact number, but
16 somewhere in the neighborhood of a hundred or 120
17 undergraduate students to go and stand at polling
18 places in a bunch of -- three counties in Northern
19 California.

10:19:11

10:19:14

10:19:17

10:19:20

10:19:23

10:19:25

20 Q What was the purpose of that study?

10:19:25

21 A To try to learn about what would cause
22 a long line to form at election -- on Election

10:19:28

10:19:31

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

26

1	Day.	10:19:33
2	Q See -- see what the -- what prompted	10:19:34
3	delays?	10:19:36
4	A That's right. Well, to learn more	10:19:38
5	about the process, which we knew nothing about,	10:19:39
6	and then to learn what parts of the process might	10:19:41
7	contribute to a line forming.	10:19:43
8	Q Did you do any studying of -- of the	10:19:45
9	sociology of people leaving the line if it was too	10:19:47
10	long, anything like that?	10:19:50
11	A So I don't know -- I don't know about	10:19:54
12	sociological research, but --	10:19:56
13	Q I didn't mean that, but yeah.	10:19:57
14	A -- we -- yes, we definitely observed	10:19:58
15	when people left the line in our data set and	10:20:00
16	tried to evaluate what was contributing to that,	10:20:04
17	you know, correlating the length of a line to the	10:20:07
18	probability of stepping out of line.	10:20:09
19	Q Did you interview them, the people who	10:20:11
20	left the line?	10:20:12
21	A We did not.	10:20:13
22	Q Okay. Did you interview people who	10:20:13

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

27

1	were poll workers, and I mean, you know, the	10:20:15
2	actual -- not campaigners, but people who were	10:20:18
3	visibly working the polls?	10:20:22
4	A Yes, we did.	10:20:24
5	Q And that was to determine the sources	10:20:25
6	of delays?	10:20:26
7	A That was to learn information about	10:20:27
8	their personal characteristics, how long they had	10:20:28
9	been working, whether they had received training,	10:20:32
10	and to get some of their views about what they had	10:20:34
11	seen.	10:20:37
12	Q Did that study reach any conclusions	10:20:37
13	that you recall here today?	10:20:39
14	A Yeah, so the study concluded a few	10:20:41
15	things. One was that the check-in service of a	10:20:43
16	voting station had as much to contribute to a long	10:20:48
17	line as the voting technology, the line length was	10:20:51
18	not correlated with the ballot length, and	10:20:55
19	primarily we learned -- I would say the most	10:20:59
20	important thing to take away from that article is	10:21:02
21	we learned the distribution of voters that arrived	10:21:04
22	at a polling station during that day, which before	10:21:06

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

28

1	that study had never been monitored.	10:21:10
2	Q Meaning time-of-day distribution?	10:21:10
3	A Time-of-day distribution.	10:21:11
4	Q Okay. Not distribution of polling	10:21:12
5	places?	10:21:15
6	A That's right. No.	10:21:16
7	Q Okay. So I think we've gotten to 2013	10:21:16
8	now. We're -- we're moving along briskly.	10:21:26
9	A Yeah.	10:21:29
10	Q What -- what did you do immediately	10:21:29
11	after receiving your doctoral degree in	10:21:30
12	jurisprudence and social policy?	10:21:33
13	A I immediately accepted a job at the	10:21:36
14	University of Connecticut.	10:21:37
15	Q And that's the Associate Professor of	10:21:39
16	Law and Public Policy position?	10:21:40
17	A That's correct.	10:21:41
18	Q And during that period of time, 2013 to	10:21:41
19	2017, what were your duties at the University of	10:21:44
20	Connecticut?	10:21:46
21	A I have a joint appointment in the	10:21:48
22	School of Law and in the Department of Public	10:21:50

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

29

1 Policy, which is part of our College of Letters in
2 Arts and Sciences. I'm a faculty member in both
3 departments.

4 Q And I know you identified some courses.
5 Which are public policy courses, and which are law
6 or legal courses?

7 A So the course -- the courses I teach at
8 the law school that I've taught for the last six
9 years are the Introduction to Constitutional Law
10 class for our first-year students, a seminar on
11 Election Law.

12 And then in the Department of Public
13 Policy, I teach a class called Introduction to
14 Public Policy. That is a survey course of
15 different ways of evaluating all kinds of public
16 policy. Basically, it's a survey. We talk about
17 environmental law, we talk about politics in the
18 law, we talk about several issues.

19 I taught a course in the undergraduate
20 Political Science Department called How to Fix
21 Elections, which is noted here. It's about
22 election administration in the United States, and

10:21:52

10:21:54

10:21:57

10:21:58

10:22:00

10:22:03

10:22:04

10:22:06

10:22:08

10:22:12

10:22:14

10:22:14

10:22:16

10:22:18

10:22:22

10:22:25

10:22:28

10:22:30

10:22:32

10:22:35

10:22:38

10:22:39

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

30

1 there was also a survey course of the political 10:22:40

2 science of how elections are managed. 10:22:43

3 Q Was there a text that you taught from 10:22:46

4 for that course? 10:22:48

5 A We used several books that we assigned 10:22:50

6 and then also some case materials. There is some 10:22:52

7 law. We used Congressional Elections, a book by 10:22:56

8 Paul Herrnson, who was my co-professor. We were 10:23:00

9 co-teachers of that class. You know, he's a 10:23:03

10 political scientist. We assigned a dozen books to 10:23:06

11 students. 10:23:13

12 Q Did you develop that curriculum by 10:23:13

13 yourself, or with this other gentleman, or -- 10:23:15

14 A Yeah, Professor Herrnson and I 10:23:18

15 developed it together. 10:23:19

16 Q Was it a new curriculum? 10:23:20

17 A It was new for the University of 10:23:22

18 Connecticut. 10:23:22

19 Q Fair enough. 10:23:23

20 Have you changed the curriculum 10:23:24

21 material over time, or was it a one-off class? 10:23:26

22 A We taught it one time so far. We plan 10:23:30

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

31

1 to teach it again next year. 10:23:32

2 Q I see. 10:23:34

3 And that's a three-year cycle, 10:23:35

4 four-year cycle? 10:23:37

5 A It should be every year, but I was on 10:23:37

6 leave last year, so I -- 10:23:38

7 Q Understood. 10:23:39

8 Tell me about that. You -- you've had 10:23:40

9 two visiting professorships -- or I guess the 10:23:41

10 first one was a visiting scholar at Yale. 10:23:43

11 What was the purpose of that -- that 10:23:47

12 assignment? 10:23:48

13 A So that was a visit where I had no 10:23:49

14 teaching obligations but I had an office space, 10:23:52

15 participation in their political science research 10:23:56

16 workshop, which was where people present works in 10:23:58

17 progress that they're working on, I was doing some 10:24:01

18 work on surveys and how to develop reliable survey 10:24:03

19 estimates from large data sets into local 10:24:07

20 elections, and I was there as I developed that 10:24:10

21 project. 10:24:14

22 Q And that was approximately a year? 10:24:15

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

32

1	A	It was an academic year.	10:24:17
2	Q	Okay. So it started in the fall, ended	10:24:20
3		in the spring?	10:24:23
4	A	Yeah, August to May-ish.	10:24:23
5	Q	Thank you.	10:24:25
6		And then you did have a visiting	10:24:25
7		professorship at the University of Chicago,	10:24:26
8		correct?	10:24:27
9	A	That's correct.	10:24:29
10	Q	Are you still in that position?	10:24:29
11	A	No. That concluded in June.	10:24:31
12	Q	Okay. And what was the scope of that	10:24:32
13		visiting professorship?	10:24:34
14	A	That visit was at the Harris School of	10:24:36
15		Public Policy. I had three courses -- two	10:24:38
16		different courses. I taught three sections	10:24:43
17		overall, two sections of Constitutional Law and a	10:24:46
18		section on Supreme Court and Public Policy, to	10:24:47
19		public policy grad students.	10:24:50
20	Q	Separate and apart from your academic	10:24:55
21		positions and your education, what experiences or	10:24:58
22		work have informed your ability to provide	10:25:01

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

33

1	opinions on racial polarization or racially	10:25:03
2	polarized voting?	10:25:07
3	A So a number of things, actually. My	10:25:09
4	Ph.D. committee members, Kevin Quinn and Henry	10:25:13
5	Brady, are both political methodologists. They're	10:25:17
6	former presidents of the Society of Political	10:25:22
7	Methodology.	10:25:23
8	THE REPORTER: Can you slow down a	10:25:26
9	little bit, please?	10:25:26
10	THE WITNESS: Yes.	10:25:26
11	THE REPORTER: Thank you.	10:25:26
12	BY MR. BOYNTON:	10:25:26
13	Q I'm usually the fast talker, so you're	10:25:27
14	helping me out.	10:25:28
15	A So specifically my training from Kevin	10:25:31
16	Quinn and Henry Brady, they're on my committee for	10:25:33
17	a reason. They're both former presidents of the	10:25:36
18	Society for Political Methodology.	10:25:39
19	Kevin Quinn is a leading scholar in the	10:25:41
20	statistical use of ecological inference. He's	10:25:45
21	developed many of the models that are used. I'm	10:25:49
22	just pointing to their names --	10:25:50

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

34

1	Q	Okay.	10:25:52
2	A	-- on my CV.	10:25:52
3	Q	Understood.	10:25:53
4	A	Henry Brady is the former chair of the	10:25:55
5		Political Science Department at Berkeley.	10:25:57
6		And I worked with them specifically on	10:25:58
7		my dissertation to develop kind of the political	10:26:00
8		science around voting, the determinants of voting,	10:26:03
9		and how to measure them.	10:26:08
10		In my report -- let's see. On page 35	10:26:11
11		where I describe my qualifications, I note a few	10:26:21
12		of the specific training opportunities that I had	10:26:27
13		in statistics and elections, this Empirical	10:26:31
14		Implications of Theoretical Models, there's a	10:26:36
15		Workshop for Research Design and Causal Inference	10:26:39
16		at Northwestern.	10:26:41
17		I provided political science research	10:26:45
18		for the Pew Center on the States, a project in	10:26:47
19		looking at the -- the return rates and	10:26:50
20		mobilization of overseas voting. I've done some	10:26:53
21		work for the Early Voting Information Center	10:26:58
22		providing political science research about who	10:26:58

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

35

1 shows up early and why. I think those are the 10:27:02
2 most directly on point in addition to my 10:27:09
3 coursework as part of a Ph.D. 10:27:11

4 Q Fair enough. And that was in response 10:27:14
5 to my question about analyzing racially polarized 10:27:16
6 voting. 10:27:19

7 Does your listing of primary 10:27:20
8 influencers of your expertise change if we talk 10:27:23
9 specifically about opinions as to which we'll call 10:27:27
10 shorthand Gingles 2 and Gingles 3? 10:27:31

11 A Definitely. 10:27:34

12 Q Okay. Tell me, then. What other 10:27:34
13 things inform that background? 10:27:36

14 A So my study of the law in law school. 10:27:38
15 I took a class on Election Law from Robert Rubin, 10:27:42
16 who was, I think, Director of Litigation at the 10:27:48
17 Lawyers' Committee for Civil Rights in the Bay 10:27:50
18 Area, who had filed -- I don't know how many -- 10:27:52
19 half-a-dozen, maybe a dozen voting rights cases. 10:27:55
20 We spent a significant portion of that class 10:27:59
21 talking specifically about the history of Gingles, 10:28:01
22 development of the criteria, and how it's used in 10:28:03

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

36

1	litigation.	10:28:05
2	Q Beyond that class, what other things	10:28:06
3	specifically inform your ability to offer opinions	10:28:08
4	in this case relating to Gingles 2 or Gingles 3?	10:28:11
5	A Extending from that class, I -- I	10:28:14
6	served as a law clerk for Robert in that Lawyers'	10:28:16
7	Committee office in San Francisco working	10:28:20
8	primarily on voting rights cases.	10:28:22
9	Q Anything beyond that?	10:28:29
10	A Not that I can think of right now.	10:28:34
11	Q Fair enough.	10:28:35
12	How are you being compensated for your	10:28:47
13	testimony in this case?	10:28:49
14	A So as I disclosed, I'm being	10:28:49
15	compensated at a rate of \$250 an hour.	10:28:51
16	Q And that is all time, whether you're	10:28:54
17	working or testifying?	10:28:57
18	A That's correct.	10:28:58
19	Q Okay. There's no different rates for	10:28:59
20	testimony?	10:29:01
21	A There is definitely not.	10:29:01
22	Q Okay. And I see on your Professional	10:29:02

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

37

1	Activities two references to serving as an expert	10:29:08
2	witness. I'm now on page 6 of your résumé	10:29:12
3	disclosure.	10:29:16
4	A Okay.	10:29:27
5	Q The first one says, Expert witness	10:29:27
6	(rebuttal on behalf of Colorado Secretary of	10:29:29
7	State) in defense of state campaign finance law.	10:29:33
8	Case: Holland v. Williams, (2018).	10:29:37
9	What is that case about?	10:29:42
10	A That is a case involving a challenge	10:29:43
11	from a local organization in Colorado against the	10:29:46
12	State's disclosure regime in Colorado.	10:29:51
13	Q And what is your role in that case?	10:29:56
14	A My role simply was to provide a	10:29:59
15	rebuttal to the plaintiff's expert.	10:30:01
16	Q And you did that in writing?	10:30:04
17	A I provided a written report.	10:30:06
18	Q Were you deposed in that case?	10:30:08
19	A I was.	10:30:10
20	Q Was that your other deposition?	10:30:11
21	A That's the only other deposition.	10:30:13
22	Q Okay. Did you testify at trial in that	10:30:14

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

38

1	matter?	10:30:16
2	A I did not.	10:30:16
3	Q Is that case resolved?	10:30:17
4	A As I understand it, there was a Summary	10:30:19
5	Judgment motion at the trial court.	10:30:22
6	Q What is a summary of your opinions in	10:30:26
7	that case?	10:30:27
8	A It was limited to evaluating the	10:30:32
9	reliability of the estimates provided by the	10:30:39
10	plaintiff's expert.	10:30:43
11	Q Was it a Voting Rights Act case?	10:30:45
12	A It was not.	10:30:48
13	Q You did not develop your own	10:30:52
14	independent opinions? You are evaluating someone	10:30:54
15	else's opinions in that case?	10:30:56
16	A That's correct.	10:30:58
17	MS. HARLESS: Objection to form.	10:30:58
18	BY MR. BOYNTON:	10:31:03
19	Q Did you develop your own opinions in	10:31:04
20	that case?	10:31:05
21	A I did not.	10:31:07
22	Q Okay. There's another reference to	10:31:08

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

39

1	serving as an expert witness (consulting) for	10:31:11
2	Voting Rights Act, Chicago Lawyers' Committee for	10:31:15
3	Civil Rights, 2015.	10:31:17
4	What was that consulting work for you?	10:31:19
5	MS. HARLESS: So I'm going to object	10:31:25
6	just to the extent if he's a consulting witness,	10:31:26
7	it's not clear if he's testifying or	10:31:30
8	non-testifying, so just that difference.	10:31:33
9	MR. BOYNTON: I'm happy to clarify.	10:31:36
10	BY MR. BOYNTON:	10:31:37
11	Q Were you retained to provide testimony	10:31:37
12	in that case?	10:31:39
13	A No.	10:31:40
14	Q Is there a case, or is it a	10:31:40
15	pre-litigation-type retention?	10:31:42
16	A I think it's pre-litigation, as far as	10:31:49
17	I understand.	10:31:51
18	Q You're still involved in that, or is it	10:31:53
19	resolved from your perspective?	10:31:55
20	A From my perspective, I think that my	10:31:57
21	involvement's been resolved.	10:31:59
22	Q Are those the only two times, other	10:32:01

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

40

1	than in this case, you've been retained as an	10:32:04
2	expert witness?	10:32:06
3	A No.	10:32:07
4	Q What other cases have you been retained	10:32:08
5	as an expert witness in?	10:32:10
6	A I am currently on a case in	10:32:11
7	Massachusetts. I checked the -- my participation	10:32:14
8	was disclosed two weeks ago. Another campaign	10:32:17
9	finance case, not a voting rights case, on behalf	10:32:21
10	of the State of Massachusetts, whose state law has	10:32:24
11	been challenged because of its disclosure regime.	10:32:27
12	Q And so you did not list that here for	10:32:32
13	what reason?	10:32:33
14	A It was not -- in July, I had not signed	10:32:34
15	an agreement and had not been disclosed to the	10:32:37
16	Court as participating in that case.	10:32:41
17	Q I see.	10:32:43
18	Okay. And you said that case is not a	10:32:43
19	Voting Rights Act case?	10:32:45
20	A It is not.	10:32:46
21	Q So this is your first case in which	10:32:47
22	you've been retained as a Voting Rights Act expert	10:32:48

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

41

1	as -- I'll -- I'll rephrase.	10:32:51
2	This is the first Voting Rights Act	10:32:52
3	case in which you've been retained as an expert?	10:32:53
4	A A testifying expert.	10:32:57
5	MS. HARLESS: Objection to form.	10:32:58
6	BY MR. BOYNTON:	10:32:59
7	Q Is this the first Voting Rights Act	10:32:59
8	case in which you've been retained as a testifying	10:33:01
9	expert?	10:33:06
10	A Yes.	10:33:17
11	(Discussion off the record.)	10:33:19
12	BY MR. BOYNTON:	10:33:20
13	Q Let's turn to your report, Exhibit 1,	10:33:20
14	please.	10:33:22
15	A (Witness complies.)	10:33:30
16	Q Are the six itemized conclusions on	10:33:33
17	page 3 a summary of your conclusions in this case	10:33:37
18	at least as of the date of your original expert	10:33:46
19	opinion?	10:33:49
20	A As of July 15th, yes.	10:33:49
21	Q Can you define for me what you consider	10:34:02
22	to be scientific certainty -- or, I'm sorry,	10:34:06

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Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

42

1	reasonable degree of scientific certainty?	10:34:11
2	A I can speak to certainty in the context	10:34:16
3	of political science research.	10:34:18
4	Q Perfect.	10:34:20
5	A Depending on the context, I'm trying to	10:34:29
6	think of the most relevant context. In political	10:34:31
7	science literature when we're comparing the	10:34:36
8	differences between two groups of individuals,	10:34:38
9	certainty, you're trying to find a reliable	10:34:42
10	estimate if the two groups are statistically	10:34:45
11	significantly different.	10:34:52
12	Q Do you -- are you able to put a	10:34:54
13	percentage confidence on that, 90 percent	10:34:56
14	reliability, 80 percent reliability, anything to	10:34:58
15	that order?	10:35:03
16	A I mean, each estimate has its own	10:35:03
17	reliability mark, so there's -- in the political	10:35:05
18	science literature, the ideal is that the -- the	10:35:08
19	probability of rejecting your null hypothesis is	10:35:13
20	5 percent.	10:35:17
21	Q Well, you're jumping straight to -- as	10:35:18
22	I understand it at least, to equivalence testing.	10:35:21

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

43

1	I'm trying to at this point stay with	10:35:24
2	your original report, and I think there were three	10:35:28
3	different methodologies used in that. And so I	10:35:30
4	would ask you, with respect to those	10:35:34
5	methodologies, what constitutes a reasonable	10:35:35
6	degree of scientific certainty?	10:35:37
7	A If there's a statistically significant	10:35:39
8	difference between the groups using the method	10:35:41
9	that you've used.	10:35:45
10	Q How do you define statistically	10:35:46
11	different?	10:35:48
12	A Statistically different means there's	10:35:49
13	an estimate for one group, and there's an estimate	10:35:51
14	for another group, and statistically they're	10:35:53
15	independent of each other.	10:35:57
16	Q Okay. Is there a standard of error or	10:35:58
17	confidence interval that you rely on as making	10:36:05
18	documents -- not documents -- making point	10:36:07
19	estimates more reliable than less reliable?	10:36:09
20	(The reporter clarified the record.)	10:36:11
21	MR. BOYNTON: That's a terrible	10:36:13
22	question. Let me start over.	10:36:14

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

44

1	BY MR. BOYNTON:	10:36:16
2	Q Well, first of all, what is a	10:36:16
3	confidence interval?	10:36:18
4	A So a confidence interval is a phrase to	10:36:21
5	describe the dispersion of a finding. You can	10:36:23
6	say, as an example, 41 percent of people have this	10:36:29
7	particular view, plus or minus 6. It means that	10:36:34
8	the -- the -- the viewpoint is dispersed about	10:36:37
9	6 percentage points.	10:36:40
10	Q Is that the same as a standard of	10:36:41
11	error?	10:36:42
12	A They both -- it's a different term, and	10:36:43
13	a confidence interval is generated by multiplying	10:36:46
14	a standard error by 1.96 if there's a normal	10:36:49
15	distribution of your finding, but it's the same	10:36:52
16	concept, which is a measure of the dispersion of	10:36:56
17	your finding.	10:36:59
18	Q When you say "a normal distribution,"	10:37:00
19	is that what we understand to be kind of a bell	10:37:01
20	curve?	10:37:04
21	A Yes.	10:37:04
22	Q Okay. And how do you determine in --	10:37:04

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

45

1	in -- well, I'll get there.	10:37:07
2	A Okay.	10:37:09
3	Q As I understand it, the larger number	10:37:16
4	of confidence interval means the less confidence.	10:37:20
5	Is that accurate?	10:37:24
6	A I'm -- the less accurate of what?	10:37:28
7	Q Well, if you have a point estimate and	10:37:32
8	the confidence interval is 20 instead of 5, is	10:37:35
9	that point estimate more or less reliable?	10:37:41
10	A In the language of political science,	10:37:44
11	it would be less reliable.	10:37:47
12	Q At what point in your profession, the	10:38:07
13	political science profession, do confidence	10:38:10
14	intervals become too large to rely upon?	10:38:13
15	A So everything is about context of the	10:38:17
16	question that's being asked. There's no point at	10:38:21
17	which a confidence interval becomes too large for	10:38:24
18	one estimate.	10:38:28
19	The confidence intervals I've generated	10:38:29
20	are to compare two groups, and the confidence	10:38:32
21	interval that's too large is if those two groups	10:38:35
22	have a confidence interval that overlap, and	10:38:38

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

46

1	that's it. It's not about the size of the	10:38:41
2	confidence interval. It's about its relationship	10:38:42
3	from one group to the next.	10:38:45
4	Q Tell me your process -- and I'm	10:38:50
5	focusing on the original order at this point --	10:38:53
6	your process in measuring racially polarized	10:38:56
7	voting.	10:38:59
8	A Okay. I'm going to rely heavily on	10:39:00
9	pages 4 through 7 at first --	10:39:04
10	Q And that's fine, but I do want to hear	10:39:07
11	it conversationally.	10:39:09
12	A -- but I'll explain what I'm doing.	10:39:11
13	Q Sure.	10:39:13
14	A There's more than one way to evaluate	10:39:13
15	the voting preferences of a voting group. Each of	10:39:15
16	these processes has -- involves trade-offs, so I	10:39:19
17	provided three different ways of evaluating	10:39:25
18	racially polarized voting, identifying candidates	10:39:28
19	of choice.	10:39:32
20	The first is called homogeneous	10:39:33
21	precinct analysis, which evaluates the voting	10:39:36
22	pattern in the precincts that have the most	10:39:38

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

47

1	racially homogeneous profile.	10:39:44
2	Q The second method is?	10:39:48
3	A The second method is called ecological	10:39:50
4	regression, and it's easy to graphically represent	10:39:52
5	by plotting each of the precincts and drawing a	10:39:57
6	line -- a regression line through them.	10:40:02
7	Q Do we call that a scatter plot in	10:40:03
8	conversation?	10:40:05
9	A Yeah.	10:40:06
10	Q Okay. And the ecological inference,	10:40:06
11	describe that for me, please.	10:40:09
12	A Ecological inference is a statistical	10:40:11
13	tool used to make distinctions about individuals	10:40:13
14	using group-level information.	10:40:16
15	Q You don't get a scatter plot from that,	10:40:21
16	from ecological inference, or you don't rely on a	10:40:24
17	scatter plot for ecological inference?	10:40:29
18	A I personally do not rely on a scatter	10:40:33
19	plot. The underlying model is based on an	10:40:33
20	algorithm that uses point estimates of the	10:40:37
21	precincts.	10:40:37
22	Q Some people would colloquially call	10:40:39

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

48

1	that a black box?	10:40:40
2	MS. HARLESS: Objection to form.	10:40:42
3	BY MR. BOYNTON:	10:40:43
4	Q Is that a term you -- your profession	10:40:44
5	uses?	10:40:47
6	A Yes.	10:40:47
7	Q Okay. Is that a term that fits for	10:40:47
8	ecological inference?	10:40:49
9	A For the uninitiated, yes.	10:40:51
10	Q Well, initiate me, please.	10:40:53
11	A Okay. The -- the statistical	10:40:56
12	development compares not the voting outcome of a	10:41:01
13	particular race of voting group to the outcome of	10:41:07
14	a candidate's vote total, but it looks at the	10:41:11
15	relationship of vote totals between different	10:41:14
16	racess themselves.	10:41:16
17	Q The -- the result or the -- the level	10:41:18
18	of confidence in the estimates -- point estimates	10:41:23
19	produced by ecological inference are dependent	10:41:26
20	upon that algorithm -- the accuracy of the	10:41:29
21	algorithm, correct?	10:41:29
22	A They're dependent on how similar other	10:41:32

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

49

1	precincts are to the precinct you're evaluating in	10:41:37
2	space.	10:41:40
3	Q So the more similar the precinct, the	10:41:40
4	better the data, or the more --	10:41:43
5	A That's correct.	10:41:45
6	Q Okay. So the less similar the	10:41:46
7	precincts, the less reliable the data?	10:41:49
8	A The larger the confidence interval.	10:41:52
9	Q Okay. Now let's speak to homogeneous	10:41:54
10	precinct analysis.	10:41:57
11	What is a homogeneous precinct in your	10:41:58
12	definition for purposes of this report?	10:42:01
13	A For the purposes of this report, I've	10:42:04
14	identified homogeneous precincts as precincts	10:42:06
15	where the non-white CVAP is greater than	10:42:09
16	60 percent.	10:42:15
17	Q Why did you use 60 percent?	10:42:16
18	A Those -- that -- there were enough	10:42:18
19	precincts exceeding 60 percent to create a	10:42:25
20	distribution.	10:42:28
21	Q There were no 70 percent-plus precincts	10:42:29
22	that you found --	10:42:32

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

50

1	MS. HARLESS: Objection.	10:42:33
2	BY MR. BOYNTON:	10:42:34
3	Q -- non-white --	10:42:34
4	MS. HARLESS: Objection.	10:42:35
5	BY MR. BOYNTON:	10:42:35
6	Q -- in Virginia Beach?	10:42:35
7	MR. BOYNTON: I can rephrase, but I	10:42:37
8	don't understand the -- the issue.	10:42:38
9	MS. HARLESS: Do you want me to --	10:42:42
10	MR. BOYNTON: Yeah. Go ahead.	10:42:42
11	MS. HARLESS: I think you're	10:42:43
12	mischaracterizing what he just said.	10:42:44
13	MR. BOYNTON: Okay.	10:42:46
14	BY MR. BOYNTON:	10:42:47
15	Q Did you find precincts that were	10:42:47
16	70 percent homogeneous in Virginia Beach?	10:42:51
17	A I do not believe so.	10:42:55
18	Q And that, therefore, means you did not	10:42:58
19	find precincts that were 80 or 90 percent	10:43:01
20	homogeneous in Virginia Beach, correct?	10:43:04
21	A That's correct.	10:43:05
22	Q And for the 60 percent precinct, they	10:43:06

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

51

1	were identified as all-minority 60 percent	10:43:08
2	precincts, or --	10:43:14
3	A For my all-minority estimate, yes.	10:43:15
4	Q Okay. Were there 60 percent black-only	10:43:18
5	precincts that you found in Virginia Beach?	10:43:21
6	A I think so. I can't remember exactly	10:43:30
7	the number of those precinct totals off the top of	10:43:32
8	my head.	10:43:34
9	Q Sure. You're welcome to look at your	10:43:35
10	report. I'm certainly not trying to --	10:43:37
11	A Yeah.	10:43:39
12	Q -- have it be a memory test.	10:43:39
13	A I identified them, so let me find it.	10:43:42
14	So I list on page 8 the precincts that	10:44:08
15	exceed 60 percent by all minority in the second	10:44:14
16	paragraph: Baker, Newtown, Davis Corner. I don't	10:44:18
17	report the precinct percent of black in this	10:44:23
18	report.	10:44:30
19	Q Okay. And so you have the four --	10:44:33
20	Baker, Newtown, Davis Corner, and Reon -- that	10:44:36
21	have minority -- total all-minority population	10:44:40
22	exceeding 60 percent, correct?	10:44:42

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

52

1	A	That's correct.	10:44:43
2	Q	So those are the four that you relied	10:44:44
3		on for your homogeneous precinct analysis?	10:44:46
4	A	Yes --	10:44:49
5	Q	Okay.	10:44:50
6	A	-- for the all-minority estimates.	10:44:51
7	Q	And on the white estimates, you relied	10:44:53
8		on Capps Shop, Kings Grant, Lake Joyce, Ocean	10:44:55
9		Park, and Rudee; is that correct?	10:45:00
10	A	That's correct.	10:45:02
11	Q	Is there any political science	10:45:05
12		literature supporting the 60 percent homogeneous	10:45:09
13		figure that you relied on in this case?	10:45:12
14	A	I -- I think what you're asking is	10:45:22
15		whether there's a threshold that is seen as	10:45:24
16		defining a homogeneous precinct versus not, and,	10:45:27
17		no, there's not.	10:45:30
18	Q	You'd have a higher level of confidence	10:45:31
19		in your data if the precincts you're relying on	10:45:33
20		were more homogeneous, correct?	10:45:36
21	A	The resulting estimates would have	10:45:37
22		smaller confidence intervals.	10:45:39

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

53

1	Q	And, similarly, if you had more than	10:45:40
2		four homogeneous precincts, you would have a	10:45:43
3		smaller confidence interval and your results on	10:45:46
4		point estimates?	10:45:49
5	A	Not necessarily.	10:45:50
6	Q	Tell me -- explain that to me.	10:45:50
7	A	So the confidence interval just	10:45:52
8		describes how far apart the dots are from each	10:45:54
9		other. So if I had four dots that were really	10:45:56
10		close together on a scatter plot and 500 dots but	10:45:59
11		all over the place, even though there's more, the	10:46:02
12		confidence interval would be bigger than the four	10:46:05
13		dots that were very close together. So it's not	10:46:07
14		about the number of precincts used. It's about	10:46:10
15		their dispersion.	10:46:12
16	Q	Fair enough.	10:46:13
17		Is there a way that you capture the	10:46:14
18		fact that you only have four data points instead	10:46:16
19		of 50 in terms of the reliability of your	10:46:18
20		estimate?	10:46:21
21	A	I don't understand the question.	10:46:28
22	Q	I'm saying that the more data, the	10:46:29

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

54

1	better usually.	10:46:31
2	Is that a general principle in	10:46:33
3	political science?	10:46:38
4	A That's -- yeah, that's a general	10:46:38
5	principal.	10:46:40
6	Q If you had ten homogeneous precincts,	10:46:41
7	you would prefer to have that in your analysis	10:46:42
8	than four?	10:46:44
9	A Yeah, that's correct.	10:46:46
10	Q Is homogeneous precinct analysis the	10:46:58
11	same as -- is it extraordinary case -- extreme	10:47:00
12	case analysis?	10:47:05
13	A I -- I -- I believe so.	10:47:07
14	Q Okay. You don't know of any material	10:47:08
15	differences between those two terms as it relates	10:47:11
16	to political science?	10:47:13
17	A I do not.	10:47:14
18	Q Why do you choose the term "homogeneous	10:47:15
19	precinct analysis" as opposed to "extreme case	10:47:17
20	analysis"?	10:47:20
21	A That was the way that I learned this	10:47:20
22	from my instructors.	10:47:23

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

55

1	Q	And those were at California Berkeley?	10:47:24
2	A	That's right.	10:47:26
3	Q	Okay. Let's switch to ecological	10:47:27
4		regression for a moment.	10:47:39
5		Well, first of all, let's -- what are	10:47:41
6		the strengths and -- well, first, what are the	10:47:43
7		strengths in homogeneous precinct analysis from	10:47:46
8		your perspective?	10:47:48
9	A	It's easy to conceptualize. So as I	10:47:51
10		mentioned before, it's not a black box. I can	10:47:55
11		explain exactly where I'm looking, what I'm	10:47:58
12		looking at, and I can compare voting patterns in	10:48:01
13		extreme or homogeneous precincts.	10:48:05
14		The logic of homogeneous precincts is	10:48:08
15		that the -- the precincts that are at different	10:48:13
16		ends of these extremes are reliable proxies of the	10:48:14
17		underlying population voting behavior.	10:48:21
18	Q	What are the weaknesses in the	10:48:24
19		homogeneous precinct analysis?	10:48:26
20	A	Well, you're only using four data	10:48:29
21		points, as you brought up, so you're throwing	10:48:31
22		away, as they say, a majority of your data points,	10:48:35

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

56

1	all of the scatter plot that's in the middle of	10:48:38
2	the extremes.	10:48:41
3	Q Now, you also in this case used a	10:48:45
4	process called ecological regression, correct?	10:48:47
5	A Yes.	10:48:50
6	Q And I think you started to tell me or	10:48:50
7	describe that for me, but if you could kind of	10:48:52
8	give me a bullet of what that is.	10:48:53
9	A Ecological regression is two steps.	10:48:56
10	You create a scatter plot that compares the	10:49:00
11	vote -- the vote totals for a candidate against	10:49:03
12	the demographic information of the precincts, and	10:49:07
13	then you draw a best-fit regression line through	10:49:10
14	that data that accounts for all of the data points	10:49:13
15	on that scatter plot, not just the extreme cases.	10:49:17
16	Q Is one of the advantages of ecological	10:49:21
17	regression that you can quote/unquote check your	10:49:23
18	data with the hom- -- homogeneous precinct	10:49:26
19	analysis?	10:49:29
20	A Yes.	10:49:30
21	Q Are you able to do that in this	10:49:38
22	instance?	10:49:40

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

57

1	A	What do you mean am I able?	10:49:43
2	Q	In the Vir- -- in the Virginia Beach	10:49:45
3		analysis for the original report, were you able to	10:49:46
4		check your ecological regression point estimates	10:49:50
5		against the homogeneous precinct analysis and	10:49:55
6		determine with confidence that it confirms the	10:50:00
7		reliability of the ecological regression data?	10:50:03
8	A	Yes.	10:50:06
9	Q	What are the strengths of ecological	10:50:07
10		regression?	10:50:16
11	A	It's graphical simplicity.	10:50:17
12	Q	Are --	10:50:21
13	A	It's easy to see.	10:50:21
14	Q	Sorry.	10:50:22
15		Are there other strengths?	10:50:23
16	A	It utilizes information from every	10:50:24
17		precinct that you're evaluating, not just the	10:50:27
18		extreme precincts.	10:50:31
19	Q	Are there limitations or weaknesses in	10:50:32
20		ecological regression as a methodology here?	10:50:36
21	A	The weaknesses of ecological regression	10:50:39
22		are the weaknesses of regression in general, which	10:50:41

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

58

1 is we're extrapolating from data to make 10:50:44
2 estimates, and that's probably the primary 10:50:48
3 weakness. 10:50:55

4 Q You say in your report that one 10:51:00
5 limitation of ecological regression is its 10:51:14
6 reliance on linear regression, which can be 10:51:16
7 negative or exceed 100 percent, adding some 10:51:19
8 confusion to the model's practical interpretation. 10:51:22

9 What do you mean by that sentence? 10:51:27

10 A So the extrap- -- this problem I 10:51:29
11 pointed out of extrapolation means that wherever 10:51:31
12 the data stop, at 60 percent, 70 percent, 10:51:35
13 80 percent, the line will continue on until it 10:51:38
14 gets to a hundred. And if the slope is too steep, 10:51:41
15 it shows clear evidence that the groups are 10:51:45
16 different, but the line, by extrapolating, which 10:51:47
17 is this weakness, might reach 105 percent or 10:51:50
18 110 percent. 10:51:54

19 Q You also say that ecological regression 10:51:57
20 can also be misleading when the underlying data do 10:51:59
21 not have a linear relationship? 10:52:02

22 A That's correct. 10:52:04

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

59

1 Q How do you determine whether or not the 10:52:05
2 underlying data have a linear relationship in 10:52:07
3 ecological regression? 10:52:10

4 A By plotting a linear line through the 10:52:11
5 data and seeing if it's statistically 10:52:14
6 significantly sloped. 10:52:20

7 Q Is there a scientific process for 10:52:21
8 determining whether that line actually fits or 10:52:23
9 is -- do you eyeball it? How do you know that 10:52:25
10 it's a legitimate line-drawing exercise for the 10:52:29
11 scatter plot? 10:52:33

12 A Well, if the estimates that it produces 10:52:34
13 are statistically different, that's a first way to 10:52:37
14 suggest that the data actually are linear, because 10:52:40
15 the line you've drawn represents them. And 10:52:42
16 there -- there are a number of ways, I suppose, to 10:52:48
17 run placebo tests, which I've done some but not in 10:52:52
18 this report. 10:52:57

19 But the general idea is you run a line 10:52:58
20 through the data, and if you get -- if you don't 10:53:00
21 get a statistically different answer, there may be 10:53:03
22 a couple reasons. One, your data may not be 10:53:06

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

60

1 linear, and so the fact that you do get a 10:53:09

2 statistically significant difference is a good 10:53:09

3 indicator that the data are linear. 10:53:11

4 Q And in the Virginia Beach instance in 10:53:13

5 your original report, did you find any evidence 10:53:16

6 that any of your data was not linear? 10:53:18

7 A No. 10:53:21

8 Q So you say then, "To address this 10:53:29

9 problem, I turn to a third method that has become 10:53:30

10 the gold-standard for evaluating racially 10:53:33

11 polarized voting in Voting Rights Act litigation: 10:53:35

12 ecological inference." 10:53:39

13 Are you addressing a problem in 10:53:40

14 Virginia Beach that you did not encounter in 10:53:42

15 Virginia Beach? 10:53:45

16 MS. HARLESS: Objection to form. 10:53:45

17 BY MR. BOYNTON: 10:53:48

18 Q I'm trying to compare the prior 10:53:48

19 sentence to the last sentence, which is, you say 10:53:49

20 that ecological regression can be misleading when 10:53:52

21 the underlying data do not have a linear 10:53:56

22 relationship. 10:53:58

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

61

1	You've testified, as I understand it,	10:53:58
2	that the data you looked at for Virginia Beach did	10:54:01
3	not have that problem, correct?	10:54:03
4	A That's correct.	10:54:05
5	Q So in addressing this problem, you're	10:54:06
6	addressing a problem that did not exist, correct?	10:54:08
7	A That's correct. I'm adding	10:54:11
8	confirmation.	10:54:12
9	Q And your confirmation is ecological	10:54:15
10	inference?	10:54:17
11	A That's correct.	10:54:17
12	Q And you call that the gold standard?	10:54:18
13	A Yes.	10:54:20
14	Q What informs you that ecological	10:54:20
15	inference is the gold standard for evaluating	10:54:22
16	racially polarized voting in Virginia Beach or in	10:54:26
17	Voting Rights Act cases generally?	10:54:31
18	A I have seen the method referred that	10:54:33
19	way in literature -- political science literature	10:54:35
20	about voting rights.	10:54:38
21	Q Can you tell me who has made that	10:54:39
22	reference that ecological inference is the gold	10:54:41

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

62

1	standard?	10:54:44
2	A I've -- I can't cite to an article off	10:54:44
3	the top of my head. I've heard that phrase from	10:54:47
4	Kevin Quinn. I've heard that phrase from Robert	10:54:50
5	Rubin.	10:54:53
6	Q Are they both still affiliated with	10:55:00
7	Berkeley?	10:55:03
8	A No. Robert was an adjunct professor,	10:55:04
9	who now, I think, may be retired and may be	10:55:07
10	private practice. Kevin Quinn is now in the	10:55:12
11	Michigan Political Science Department.	10:55:14
12	Q University of Michigan?	10:55:17
13	A University of Michigan.	10:55:18
14	Maybe jointly in the Statistics	10:55:20
15	Department. I don't know.	10:55:22
16	Q Can you tell me -- and I know you also	10:55:24
17	are a lawyer -- what cases that ecological	10:55:27
18	inference has been approved of as a methodology in	10:55:31
19	Voting Rights Act cases?	10:55:38
20	A I don't know that off the top of my	10:55:38
21	head.	10:55:39
22	Q Okay. Are you aware if there are any	10:55:40

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

63

1	Supreme Court of the United States cases that	10:55:43
2	affirm the use of ecological inference?	10:55:45
3	A I don't know that off the top of my	10:55:49
4	head.	10:55:49
5	Q Are you aware if there are any Circuit	10:55:50
6	Court of Appeals in the federal circuits that have	10:55:52
7	affirmed the use of ecological inference?	10:55:55
8	A I can't speak reliably to that. I know	10:56:02
9	that I've read expert reports that use ecological	10:56:05
10	inference. I don't remember the cases they were	10:56:08
11	involved in.	10:56:10
12	Q Fair enough.	10:56:12
13	Do you recall who else has used	10:56:13
14	ecological inference in the expert reports you've	10:56:15
15	reviewed?	10:56:17
16	A I can't -- I can't think right now off	10:56:22
17	the top of my head.	10:56:24
18	Q And these are the three methodologies	10:56:37
19	you utilized for your original expert report on or	10:56:39
20	before July 15th, correct?	10:56:44
21	A That's correct.	10:56:44
22	Q You did not do equivalence testing for	10:56:45

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

64

1	your original report, correct?	10:56:47
2	A That's correct.	10:56:49
3	Q Okay. So that's a process that you	10:56:49
4	employed after July 15th, 2019?	10:56:51
5	A Correct.	10:56:54
6	MR. BOYNTON: Do you want to take a	10:56:59
7	break? It doesn't matter, but --	10:57:00
8	MR. HEBERT: If it suits you, sure.	10:57:04
9	MR. BOYNTON: It suits me. Thank you,	10:57:06
10	sir.	10:57:07
11	THE VIDEOGRAPHER: Please stand by.	10:57:08
12	We are going off the record. The time	10:57:09
13	is 10:56 a.m.	10:57:11
14	(A recess was taken.)	10:57:13
15	THE VIDEOGRAPHER: We are back on the	11:04:32
16	record. The time is 11:03 a.m.	11:04:33
17	BY MR. BOYNTON:	11:04:36
18	Q Dr. Spencer, a couple cleanup questions	11:04:38
19	with respect to just your process in generating	11:04:42
20	this report.	11:04:45
21	First of all, how many hours did you	11:04:46
22	spend preparing the original report?	11:04:47

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

65

1	A	I think something like 35 or 40.	11:04:50
2	Q	What -- what source -- what written	11:04:53
3		sources did you consider as informing your	11:04:55
4		original report?	11:04:59
5	A	The written sources I relied on I cited	11:05:00
6		in the footnotes.	11:05:04
7	Q	There's nothing outside of the	11:05:05
8		footnotes that you relied on or considered in	11:05:08
9		this -- in the preparation of this original	11:05:10
10		report?	11:05:11
11	A	Not that contributed to the substance.	11:05:12
12	Q	Fair enough.	11:05:15
13		Did you have any assistance with the	11:05:17
14		preparation of your report?	11:05:19
15	A	I did not.	11:05:20
16	Q	You don't have a research assistant or	11:05:21
17		anybody to do work for you that -- that -- even if	11:05:23
18		it's just collecting materials?	11:05:26
19	A	No.	11:05:28
20	Q	This is 100 percent your work?	11:05:28
21	A	Yes.	11:05:30
22	Q	Okay. Without giving me the substance	11:05:31

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

66

1	of any conversations, who did you speak with in	11:05:34
2	informing yourself about this report?	11:05:36
3	A In addition to counsel?	11:05:42
4	Q Yeah, separate from counsel. I	11:05:43
5	don't --	11:05:45
6	A I exchanged e-mails with the GIS	11:05:48
7	department in Virginia Beach --	11:05:53
8	Q I saw that.	11:05:54
9	A -- as part of -- I disclosed that.	11:05:54
10	Q Appendix B?	11:05:56
11	(The reporter clarified the record.)	11:05:56
12	BY MR. BOYNTON:	11:05:58
13	Q Appendix B? I'm just --	11:05:59
14	A Appendix B of response.	11:06:01
15	I think that's all.	11:06:03
16	Q Did you speak with any of Plaintiffs'	11:06:05
17	experts in the case?	11:06:08
18	MS. HARLESS: Objection to --	11:06:11
19	MR. BOYNTON: I'm not asking for	11:06:12
20	content. I'm just asking if he spoke with them.	11:06:13
21	THE WITNESS: No.	11:06:17
22	BY MR. BOYNTON:	11:06:17

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

67

1	Q	Okay. And that includes electronic	11:06:17
2		communications?	11:06:20
3	A	That includes -- yes, that -- I did not	11:06:21
4		communicate with any experts.	11:06:23
5	Q	Fair enough.	11:06:24
6		And that is all in regard to the	11:06:25
7		original report, correct?	11:06:27
8	A	Correct.	11:06:29
9	Q	Okay. Does that change with respect to	11:06:29
10		the rebuttal report?	11:06:31
11	A	No.	11:06:34
12	Q	Okay. Explain to me King's ecological	11:06:34
13		inference method. Have fun with that.	11:06:44
14	A	Well --	11:06:51
15	Q	He (indicating) wrote that one. He's	11:06:53
16		been loving it.	11:06:54
17	A	To the best that I can, as I mentioned	11:06:56
18		earlier, the primary contribution of this method	11:07:03
19		is to compare the vote totals of white voters and	11:07:06
20		the vote totals of non-white voters directly to	11:07:11
21		each other in homogeneous precinct analysis and	11:07:15
22		ecological regression.	11:07:19

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

68

1 Each of those estimates is generated in 11:07:20
2 its own way separately, and this combines those 11:07:23
3 into the same model in generating a relation- -- a 11:07:26
4 linear relationship, which is noted on page 6 of 11:07:30
5 the original report. 11:07:33

6 And the estimate for white or non-white 11:07:37
7 voting in a precinct is driven by the 11:07:41
8 relationship -- this linear relationship and 11:07:43
9 information about precincts that are nearby in 11:07:47
10 space. 11:07:51

11 Q And under each of these three 11:07:51
12 methodologies, you were able to generate a -- or 11:07:55
13 generate multiple point estimates for black 11:08:01
14 support for various candidates, correct? 11:08:04

15 A Correct. 11:08:06

16 Q And under all three of these 11:08:07
17 methodologies, you were able to generate point 11:08:09
18 estimates for all-minority support, correct? 11:08:13

19 A That's correct. 11:08:17

20 Q You were not able to develop point 11:08:17
21 estimates under these three methodologies for 11:08:19
22 Asian support, correct? 11:08:22

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

69

1	A	That's correct.	11:08:26
2	Q	And you were not able to develop under	11:08:26
3		these three methodologies point estimates for	11:08:29
4		Hispanic support in Virginia Beach?	11:08:35
5	A	I did not, no.	11:08:38
6	Q	And that's because the information	11:08:40
7		available does not allow you to make a reliable	11:08:41
8		estimate, correct?	11:08:43
9	A	That's correct.	11:08:44
10	Q	Okay. Why is that?	11:08:44
11	A	The homogeneous characteristic or	11:08:48
12		extreme characteristic does not exist for Hispanic	11:08:54
13		and Asian. The population size is too small.	11:08:58
14	Q	And that applies to all three methods	11:09:02
15		or just to the homogeneous precinct analysis?	11:09:05
16	A	It applies to all three methods.	11:09:07
17	Q	The data -- the data available or	11:09:09
18		the -- rephrase.	11:09:11
19		You don't have a sufficient enough	11:09:17
20		concentration of Asian voters or Hispanic voters	11:09:19
21		in Virginia Beach to be able to reliably estimate	11:09:23
22		them using these three sources?	11:09:26

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

70

1	MS. HARLESS: Objecting to form.	11:09:28
2	BY MR. BOYNTON:	11:09:29
3	Q These three methods? Sorry.	11:09:30
4	MS. HARLESS: Objection to the form.	11:09:35
5	THE WITNESS: I'm happy to answer, but	11:09:36
6	I'm just -- walk me through it one more time.	11:09:38
7	There's not a sufficient -- say that one more	11:09:40
8	time. Sorry.	11:09:44
9	Q Yeah, that's fine.	11:09:45
10	Do you -- can you reliably estimate	11:09:49
11	Asian or Hispanic -- I already established that.	11:09:59
12	I'm trying to get something else. Sorry.	11:10:01
13	A That's fine.	11:10:04
14	Q Too many voices in my head.	11:10:06
15	Is it the lack of a sufficient	11:10:08
16	concentration of Asian voters in a small location	11:10:15
17	in Virginia Beach or multiple small locations that	11:10:21
18	prevent you from being able to have a reliable	11:10:24
19	estimate of those voters in Virginia Beach under	11:10:27
20	the three methods you used in your original	11:10:31
21	report?	11:10:34
22	MS. HARLESS: Objection to form.	11:10:34

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

71

1	THE WITNESS: I'm not sure I know	11:10:37
2	anything about their geographic dispersion,	11:10:39
3	where -- where -- where they're in multiple small	11:10:41
4	spots.	11:10:45
5	BY MR. BOYNTON:	11:10:45
6	Q Well, what is it that prevents you from	11:10:46
7	being able to make an accurate estimate of	11:10:47
8	Hispanic or Asian voters in Virginia Beach under	11:10:48
9	those three methodologies?	11:10:53
10	A There are no precincts where the	11:10:53
11	population size of Hispanic and Asian is larger	11:10:56
12	than 15 or 20 percent.	11:11:01
13	Q Thank you. That took us a while.	11:11:01
14	Sorry. That's my fault.	11:11:08
15	So then we get into your determination	11:11:15
16	of probative races, correct?	11:11:17
17	A Correct.	11:11:20
18	Q I'll say probative elections. That's	11:11:21
19	probably a better term.	11:11:22
20	A Yep.	11:11:24
21	Q And how many probative -- well, first	11:11:24
22	of all, what was your definition of a probative	11:11:26

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

72

1 election for the original report? 11:11:29

2 A I began by looking at races that began 11:11:35
3 in 2008 and more recent, because that's when the 11:11:39
4 precinct-level data were publicly available at the 11:11:43
5 election site. I identified all races -- all 11:11:47
6 elections where there was a minority candidate 11:11:52
7 running in the election as the starting point for 11:11:55
8 which elections would be probative. 11:12:00

9 Q And how many elections did you find 11:12:03
10 that featured a minority candidate running for 11:12:04
11 office and City Council of Virginia Beach between 11:12:09
12 2008 and 2018? 11:12:11

13 A I should know this number off the top 11:12:16
14 of my head, but let me look. 11:12:17

15 I'll say 19 minority candidates in that 11:12:44
16 time period. 11:12:46

17 Q All things being equal, are -- for your 11:12:52
18 purposes, using these three methodologies, are 11:12:57
19 more recent elections more probative or are older 11:13:00
20 elections more probative? 11:13:04

21 A The timing does not dictate the 11:13:08
22 probativeness except to the extent that my goal 11:13:11

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

73

1	is -- my -- my purpose in evaluating is to see	11:13:15
2	whether there's a pattern, not a one-time effect.	11:13:18
3	Q Fair enough.	11:13:21
4	Are you aware of which races -- I'm	11:13:21
5	sorry, which elections occurred after the re- --	11:13:23
6	the last redistricting in Virginia Beach in which	11:13:27
7	these elections occurred before the last	11:13:31
8	redistricting?	11:13:33
9	A I'm not. I presume the redistricting	11:13:35
10	happened in 2010.	11:13:41
11	Q Are you aware of which elections	11:13:43
12	occurred after the last census in Virginia Beach	11:13:45
13	versus prior to the last census?	11:13:48
14	A The last decennial census? Yeah, the	11:13:51
15	elections after 2010.	11:13:56
16	Q Do you find that races -- I'm sorry,	11:14:01
17	elections that occurred after the last census was	11:14:03
18	taken are more probative than elections that	11:14:07
19	occurred before the last census was taken?	11:14:09
20	A No, I do not.	11:14:13
21	Q You would agree that the demographic	11:14:26
22	information post-2010 census is likely to be more	11:14:30

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

74

1	accurate from your purposes than that that is	11:14:39
2	before for current day?	11:14:43
3	A That's actually not --	11:14:44
4	MS. HARLESS: Objection to form.	11:14:46
5	THE WITNESS: Sorry.	11:14:46
6	MS. HARLESS: Sorry.	11:14:46
7	BY MR. BOYNTON:	11:14:47
8	Q You can answer.	11:14:47
9	A No, that's not the case, because the	11:14:49
10	data I rely on come from the American Community	11:14:51
11	Survey, which is administered every year.	11:14:53
12	Q Fair enough.	11:14:56
13	Did you rely on any census data in	11:14:57
14	this, or just ACS?	11:15:01
15	A So my understanding is the ACS is a	11:15:02
16	census product of census data but not the	11:15:04
17	decennial census information, the -- the short	11:15:06
18	form.	11:15:09
19	Q Did you rely on any information from	11:15:10
20	the decennial census from 2010?	11:15:11
21	A I don't think so. I'll clarify. Not	11:15:17
22	for my homogeneous precincts, ecological	11:15:21

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

75

1 regression, and ecological inference. It may be 11:15:26
2 the case when I summarized the overall statistics 11:15:28
3 of what happens in Virginia Beach, that may have 11:15:30
4 come from the long form -- or, excuse me, the 11:15:33
5 decennial census. 11:15:39

6 Q Directing your attention to page 11 of 11:15:41
7 your original report -- 11:15:43

8 A Yes. 11:15:54

9 Q -- you have a chart there that calls 11:15:54
10 out various races -- I'm sorry, various elections, 11:15:56
11 and in 2018 you mention the Princess Anne race as 11:16:00
12 having a coalition. 11:16:04

13 Did you perhaps mean the Centerville 11:16:06
14 race there? 11:16:08

15 A Yes. And the 2018 race here was 11:16:08
16 provisional, and some of the final resolution of 11:16:16
17 that case was pending. 11:16:19

18 Q In July of 2019? 11:16:20

19 A If I remember correctly, when I 11:16:22
20 submitted the report, I didn't know the resolution 11:16:24
21 of that election. 11:16:26

22 Q Okay. But -- but when you refer to 11:16:28

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

76

1	Princess Anne, the race that you follow up with on	11:16:31
2	the next page is actually Centerville?	11:16:34
3	A Yes. That's a typo --	11:16:36
4	Q Okay.	11:16:38
5	A -- I believe. Let me check just to	11:16:38
6	confirm.	11:16:40
7	Yes, that's a typo.	11:16:43
8	Q Okay. You reviewed the Centerville	11:16:52
9	race that had -- I'm sorry, the Centerville	11:16:54
10	election that had how many candidates?	11:16:56
11	A Three candidates.	11:17:01
12	Q In 2018. Sorry, I can be more specific	11:17:02
13	if that's helpful.	11:17:04
14	And how many of those candidates were	11:17:05
15	minority candidates?	11:17:07
16	A Two.	11:17:08
17	Q Who were those candidates?	11:17:08
18	A Sabrina Wooten, and I think Eric Wray.	11:17:12
19	Q Did you determine that one candidate or	11:17:17
20	more in that race was a minority candidate of	11:17:19
21	choice?	11:17:22
22	A Yes.	11:17:23

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

77

1	Q	Who was that person?	11:17:23
2	A	Sabrina Wooten.	11:17:25
3	Q	What is a minority candidate of choice	11:17:26
4		from your perspective?	11:17:28
5	A	Minority candidate of choice is the	11:17:32
6		most preferred candidate among a particular	11:17:34
7		minority population.	11:17:37
8	Q	Do you use the terms "minority	11:17:39
9		preferred" and "minority candidate of choice"	11:17:41
10		interchangeably in this or other reports?	11:17:43
11	A	Yes.	11:17:47
12	Q	Okay. Going back to page 11 just for a	11:17:48
13		second --	11:17:55
14	A	Uh-huh.	11:17:55
15	Q	-- you make in your chart a column for	11:17:56
16		minority coalition and a column for minority	11:18:02
17		cohesion.	11:18:05
18		Tell me what the difference is in those	11:18:07
19		two terms from your perspective preparing this	11:18:09
20		chart.	11:18:12
21	A	The cohesion column represents that	11:18:22
22		there is minority-preferred candidate in a race.	11:18:27

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

78

1	The coalition shows that that is an estimate in	11:18:35
2	this all-minority row of these tables.	11:18:39
3	Q And you say "these tables." You're	11:18:43
4	looking at page 14?	11:18:46
5	A The tables that exist on page 14 and	11:18:47
6	16, et cetera.	11:18:52
7	Q So help me understand. The Centerville	11:18:53
8	race had a minority candidate of choice, correct?	11:18:59
9	A That's correct.	11:19:03
10	Q So that would check the cohesion box	11:19:05
11	for that race, correct?	11:19:07
12	A Correct.	11:19:09
13	Q But that box isn't checked on your	11:19:10
14	report?	11:19:12
15	A That's correct. That's wrong.	11:19:14
16	Q Okay. And so what -- now, help me	11:19:16
17	understand why you checked the coalition box for	11:19:20
18	that race.	11:19:23
19	A When the -- when I began writing this	11:19:27
20	table -- it's not as clear as I would have liked.	11:19:32
21	The idea was to show that the all-minority	11:19:35
22	estimate was also in support of the same	11:19:40

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

79

1	minority-preferred candidate as the black-voter	11:19:45
2	estimate.	11:19:48
3	Q So you are saying minority -- for	11:19:51
4	cohesion, you have a check for both black and all	11:19:56
5	minority, but for coalition, you just have one	11:20:01
6	check, or am I totally misunderstanding it?	11:20:04
7	A No. I think the understanding is that	11:20:07
8	the cohesion column represents the co- -- the	11:20:08
9	minority-preferred candidate of black voters, and	11:20:14
10	the coalition shows when the minority-preferred	11:20:17
11	candidate of all minority voters supports that.	11:20:21
12	Q Okay. So, for example, for	11:20:26
13	Ms. Wooten's race on page 14 -- Ms. Wooten's	11:20:30
14	campaign on page 14 --	11:20:35
15	A Yeah.	11:20:36
16	Q -- the top check is that she was the	11:20:36
17	minority candidate of choice for black voters?	11:20:40
18	A That's correct.	11:20:42
19	Q So that would identify cohesion?	11:20:43
20	A Under this --	11:20:46
21	Q Chart?	11:20:47
22	A -- chart.	11:20:47

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

80

1	Q	And the fact that there's a second	11:20:49
2		check next to "All Minority" for Ms. Wooten in the	11:20:50
3		Centerville election means that there is also a	11:20:54
4		coalition?	11:21:00
5	A	That is the -- that was the purpose of	11:21:01
6		building this table.	11:21:02
7	Q	Okay. The table on page 11?	11:21:03
8	A	On page 11.	11:21:06
9	Q	Okay. Now, for the 2018 at-large	11:21:06
10		racers, I think you've acknowledged in your	11:21:25
11		rebuttal report that the numbers for HP, ER, and	11:21:31
12		EI all need to be doubled for each candidate?	11:21:35
13	A	That's correct.	11:21:38
14	Q	And why is that?	11:21:38
15	A	Because there were two candidates	11:21:41
16		chosen, which I note, and so the vote -- because	11:21:43
17		each person voting for that seat could vote	11:21:47
18		basically for two people, the total sum should	11:21:50
19		equal 200 percent, not 100 percent.	11:21:54
20	Q	What did you do in your three	11:21:57
21		methodologies to account for the possibility of	11:21:58
22		certain voters voting for just one candidate when	11:22:04

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

81

1	they could have voted for two in the at-large	11:22:08
2	races?	11:22:12
3	A Here, I did -- I did nothing.	11:22:14
4	Q Okay. When you updated the at-large	11:22:15
5	election estimates for HP, ER, and EI in the	11:22:30
6	appendix of your rebuttal report to reflect the	11:22:37
7	two seats, did you make any adjustment or factor	11:22:41
8	in in any way at that point in time the	11:22:45
9	possibility of voters voting for just one	11:22:49
10	candidate when they could have voted for two in	11:22:51
11	that at-large race?	11:22:53
12	A Yes, to the extent that the denominator	11:22:55
13	is the total votes that were cast in that race.	11:22:58
14	Q But beyond that, there was no type of	11:23:03
15	offset?	11:23:06
16	A I don't know what "offset" means, but	11:23:07
17	the total number of votes cast would capture how	11:23:09
18	many votes were actually cast. And if there was	11:23:12
19	only one cast instead of two, it would be	11:23:15
20	reflected in that, which would then go into the	11:23:18
21	ratio that this represents.	11:23:21
22	Q Okay. You conclude for 2018 that there	11:23:22

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

82

1	are three probative races, correct, two at-large	11:23:32
2	seats and one Centerville seat?	11:23:40
3	A Correct.	11:23:43
4	Q And you find three minority candidates	11:23:44
5	of choice for the 2018 election, correct?	11:23:47
6	A Correct.	11:23:53
7	Q And both minor- -- or, I'm sorry, two	11:23:53
8	of the three minority candidates of choice	11:23:55
9	prevailed in that election, correct?	11:23:58
10	A Correct.	11:24:00
11	Q And the one who did not prevail was	11:24:00
12	Ms. White?	11:24:02
13	A Correct.	11:24:03
14	Q Okay. And do you know her actual race?	11:24:03
15	A I believe that she's white.	11:24:08
16	Q Okay. And you understand that	11:24:10
17	Mr. Rouse and Ms. Wooten are African-American?	11:24:12
18	A Yes.	11:24:19
19	Q Okay. Did you do any analysis of	11:24:19
20	whether the 2018 election presented any type of	11:24:22
21	special circumstances that would negate the	11:24:26
22	victories by Mr. Rouse and Ms. Wooten as minority	11:24:32

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

83

1	candidates of choice?	11:24:37
2	MS. HARLESS: Object to form.	11:24:38
3	THE WITNESS: I -- the -- that were	11:24:40
4	special, you said?	11:24:46
5	BY MR. BOYNTON:	11:24:47
6	Q Okay. Well, I can try to rephrase.	11:24:47
7	A Yeah.	11:24:50
8	Q Is there anything about the 2018	11:24:50
9	election that you studied that led you to devalue	11:24:51
10	the import of the 2018 election?	11:24:55
11	A I don't know about whether it devalues,	11:25:02
12	but I can tell you some things that were different	11:25:05
13	about the 2018 race.	11:25:07
14	Q Go right ahead, please.	11:25:10
15	A As I note on page 12, Ms. Wooten is the	11:25:12
16	only candidate in the entire time period that I	11:25:17
17	studied who earned a majority of white support,	11:25:19
18	which stuck out to me as different. Her support	11:25:24
19	was about three times the average of the average	11:25:29
20	white support for minority candidates during that	11:25:33
21	period.	11:25:37
22	Let me go back to this table.	11:25:43

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

84

1 Mr. Rouse also was supported by a lot of crossover
2 voting, more than expected for a race with six
3 candidates. So that -- that -- that sticks out to
4 me as different, if that's what you're asking.

5 Q But nothing led you to not consider
6 those races to be probative?

7 MS. HARLESS: Objection to form.

8 BY MR. BOYNTON:

9 Q You deemed those three races as
10 probative races, correct? That's what your report
11 says?

12 A Yes.

13 Q And you deemed Mr. Rouse and Ms. Wooten
14 to be minority candidates of choice in your
15 original report?

16 A That's correct.

17 Q Okay. Turning to the 2016 Kempsville
18 election, page 16 --

19 A Uh-huh.

20 Q -- did you find two probative races for
21 2016?

22 A I found the Kempsville race to be

11:25:55

11:26:00

11:26:04

11:26:09

11:26:11

11:26:12

11:26:14

11:26:16

11:26:16

11:26:19

11:26:22

11:26:22

11:26:22

11:26:24

11:26:27

11:26:28

11:26:28

11:26:38

11:26:49

11:26:49

11:26:53

11:26:58

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

85

1 probative and not the mayoral race. 11:27:00

2 Q So why are you calling out on page 16 11:27:06

3 the mayor's race under your "All Probative Races" 11:27:09

4 header? 11:27:14

5 A So the starting point for my probative 11:27:15

6 races were all races that involved a minority 11:27:18

7 candidate, and then these can- -- these elections 11:27:21

8 that included Mr. Furman, I note several times in 11:27:25

9 the report they're not, in my opinion, probative 11:27:30

10 because of his habitual lack of minority support, 11:27:32

11 and I've included his results also in an appendix 11:27:37

12 kind of highlighting that fact. 11:27:40

13 Q You would agree, though, that 11:27:44

14 Mr. Furman is African-American? 11:27:44

15 A Yes. 11:27:46

16 Q Okay. And if that race was probative, 11:27:46

17 you agree that Will Sessoms was the minority 11:27:49

18 candidate of choice in that race? 11:27:56

19 A Yes. 11:27:57

20 Q And he prevailed? 11:27:57

21 A Yes. 11:27:58

22 Q And in the Kempsville race, you found 11:27:58

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

86

1	that Dr. Ross-Hammond was the minority candidate	11:27:59
2	of choice, correct?	11:28:03
3	A Correct.	11:28:04
4	Q But she did not prevail?	11:28:04
5	A That's correct.	11:28:06
6	Q Did you determine if she was defeated	11:28:09
7	by white bloc voting?	11:28:13
8	A Yes.	11:28:17
9	Q How did you determine that?	11:28:17
10	A Well, the support among white voters	11:28:21
11	was significantly -- statistically significantly	11:28:27
12	different, her support among white voters was far	11:28:30
13	less than the threshold that would be needed to	11:28:33
14	win, and the winning candidate, Abbott, had the	11:28:35
15	support of nearly 70 percent of white voters.	11:28:39
16	Q Turning to the 2014 Rose Hall	11:29:06
17	election -- sorry.	11:29:11
18	Turning to the 2014 City Council	11:29:17
19	elections in general --	11:29:21
20	A Okay.	11:29:22
21	Q -- that's another one where for	11:29:22
22	at-large you needed to double your numbers,	11:29:23

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

87

1	correct?	11:29:26
2	A Correct.	11:29:26
3	Q Does doubling your numbers -- and I	11:29:35
4	understand that that's another one where you	11:29:37
5	determine ultimately that the at-large race is not	11:29:40
6	probative because Mr. Furman was in it, correct?	11:29:44
7	A Correct. To the extent that Mr. Furman	11:29:51
8	was also a candidate in other races, it's not just	11:29:53
9	his presence and it's not just this race. It's	11:29:57
10	the habitual pattern of his inability to show	11:30:01
11	support among this community. But, yes, the	11:30:03
12	reason I don't consider it probative is -- I don't	11:30:05
13	consider the Furman races as probative.	11:30:08
14	Q So you started out designating all	11:30:10
15	races that have all been African-American	11:30:13
16	candidates as probative, and then you pull out	11:30:13
17	three Furman races and no other races, correct?	11:30:15
18	A That's correct.	11:30:18
19	Q Okay. And once you double the numbers	11:30:19
20	for the at-large race, does that change your	11:30:23
21	conclusion as to whether Mr. Davenport had	11:30:27
22	minority-candidate-of-choice support for both	11:30:32

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

88

1	black and all minorities?	11:30:35
2	MS. HARLESS: Objection to form.	11:30:37
3	THE WITNESS: So it doesn't change my	11:30:42
4	view about Davenport. There is an argument to be	11:30:45
5	made that Furman would have the second-highest	11:30:53
6	support and, because there were two seats	11:30:58
7	available, which I did not account for in this,	11:31:00
8	could be considered the candidate of choice.	11:31:02
9	BY MR. BOYNTON:	11:31:07
10	Q So Mr. Furman could have been the	11:31:07
11	minority candidate of choice under your data?	11:31:10
12	A That's correct.	11:31:12
13	Q And you have two spots. So in the two	11:31:17
14	spots, were there two minority candidates of	11:31:20
15	choice?	11:31:22
16	MS. HARLESS: Objection to form.	11:31:24
17	THE WITNESS: For two spot there, yes.	11:31:29
18	BY MR. BOYNTON:	11:31:31
19	Q So you have two minority candidates of	11:31:33
20	choice under that race, and Furman is the second?	11:31:34
21	A Let me look really quickly.	11:31:47
22	It's -- it's not clear who the second	11:32:16

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

89

1	candidate of choice would be, in my opinion.	11:32:20
2	Furman could be defended as a candidate of choice,	11:32:24
3	but not necessarily.	11:32:27
4	Q Davenport is clearly a minority	11:32:29
5	candidate of choice, though, correct?	11:32:30
6	A Davenport is, yes.	11:32:32
7	Q For both blacks and all minorities,	11:32:32
8	correct?	11:32:36
9	A Yes.	11:32:37
10	Q Okay. So there should have been	11:32:37
11	another check on your report next to Davenport	11:32:39
12	under --	11:32:39
13	A Correct.	11:32:40
14	Q -- "All Minority, Minority candidate of	11:32:40
15	choice"?	11:32:40
16	That's an error, correct?	11:32:42
17	A Yes.	11:32:43
18	Q Okay.	11:32:43
19	MS. HARLESS: Make sure you guys aren't	11:32:44
20	talking over each other.	11:32:46
21	MR. BOYNTON: I'm sorry. You're	11:32:47
22	correct. Sorry about that.	11:32:47

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

90

1	BY MR. BOYNTON:	11:32:53
2	Q So I understand you remove the at-large	11:32:53
3	race from your probative races, but if you did not	11:32:57
4	remove it, Davenport was the minority candidate of	11:33:01
5	choice who prevailed, correct?	11:33:05
6	A Correct.	11:33:08
7	Q In the Rose Hall race, did you find a	11:33:17
8	minority candidate of choice?	11:33:19
9	A Yes.	11:33:23
10	Q Who was that?	11:33:24
11	A Mr. Cabiness.	11:33:27
12	Q Did he prevail?	11:33:33
13	A He did not.	11:33:34
14	Q Was he defeated by white bloc voting?	11:33:35
15	A Yes.	11:33:39
16	Q And how do you conclude that from this	11:33:39
17	data?	11:33:41
18	A He earned an estimated 2 to 6 percent	11:33:42
19	of white vote support, and the winning candidate	11:33:45
20	earned 60 percent of white support.	11:33:48
21	Q And under the Princess Anne race for	11:33:51
22	2014, did you find a minority candidate of choice?	11:33:55

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

91

1	A	Yes, Barbara Henley.	11:33:59
2	Q	And did she prevail.	11:34:02
3	A	She did.	11:34:03
4	Q	And you find that race probative,	11:34:13
5		correct?	11:34:15
6	A	Yes.	11:34:15
7	Q	When you are determining minority	11:34:23
8		candidates of choice under these various	11:34:26
9		elections, are you requiring that all three of the	11:34:29
10		analyses align?	11:34:38
11	A	I'm looking for a pattern of support	11:34:40
12		that is confirmed by all three methods.	11:34:42
13	Q	So if one of the three methods does not	11:34:45
14		confirm, do you -- well, what results from that	11:34:48
15		occurrence?	11:34:54
16	A	So I give the most weight to ecological	11:34:57
17		regression and ecological inference estimates. So	11:35:00
18		if the homogeneous precinct analysis is the one	11:35:03
19		outlier because of -- I give that less weight, but	11:35:06
20		I'm looking to see if the candidate who earned the	11:35:13
21		most support from minority voters is identified as	11:35:16
22		the candidate of choice, and that is, you know,	11:35:21

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

92

1	comparing the regression and ecological inference	11:35:27
2	and homogeneous precinct estimates of each	11:35:30
3	candidate across the board.	11:35:34
4	Q Turning your attention to 2012, did you	11:35:44
5	find the 2012 Kempsville race to be probative?	11:35:53
6	A I did.	11:35:57
7	Q Did you find Dr. Ross-Hammond to be the	11:35:58
8	minority candidate of choice for both black and	11:36:01
9	all minority?	11:36:01
10	A Yes.	11:36:02
11	Q Did she prevail?	11:36:03
12	A She did.	11:36:04
13	Q And she is African-American?	11:36:07
14	A Yes.	11:36:10
15	Q Turning your attention to the 2011	11:36:15
16	at-large special election for City Council, do you	11:36:19
17	recall if this particular election occurred before	11:36:23
18	or after the most recent City Council	11:36:25
19	redistricting?	11:36:31
20	A I'm not aware that the City Council was	11:36:34
21	redistricted. I think it's an at-large election.	11:36:36
22	Q But do you know when the redistricting	11:36:43

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Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

93

1	occurred?	11:36:45
2	A I don't know the date that whatever	11:36:47
3	state redistricting happened for Congressional	11:36:49
4	districts or something would have taken effect.	11:36:53
5	Q With respect to the seven residence	11:36:55
6	districts of Virginia Beach, do you know when	11:36:56
7	those were redistricted last?	11:36:59
8	A I do not.	11:37:01
9	Q Did you find a minority candidate of	11:37:02
10	choice in the 2011 Virginia Beach City Council	11:37:04
11	special election?	11:37:09
12	A Yes, Sherrod.	11:37:10
13	Q Did he prevail?	11:37:12
14	A No.	11:37:14
15	Q Was he defeated by white bloc voting?	11:37:17
16	A Yes.	11:37:21
17	Q And you know from the vote totals of	11:37:21
18	white on that page 23?	11:37:24
19	A Uh-huh. The white support was	11:37:25
20	50 percent less than minority support and	11:37:27
21	significantly less than the winning candidate's.	11:37:31
22	Q And you found that race to be	11:37:34

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

94

1	probative?	11:37:35
2	A Yes.	11:37:36
3	Q Turning your attention to 2010, it	11:37:36
4	appears there were three elections you looked at,	11:37:55
5	the At-large election, the Bayside election, and	11:38:00
6	the Princess Anne, correct?	11:38:03
7	A I've listed the Bayside here, but,	11:38:06
8	again, that included Furman, who I put in an	11:38:08
9	appendix, but I have estimates here for all of	11:38:12
10	them.	11:38:15
11	Q Okay. So that passed -- the Furman	11:38:15
12	Bayside race at least passed your first cut for	11:38:16
13	being probative, but then you later removed it	11:38:19
14	because of Furman?	11:38:23
15	A That's correct.	11:38:26
16	Q And in this instance, Mr. Furman	11:38:27
17	received between 36.8 and 44.2 percent of the	11:38:30
18	African-American vote in Bayside, correct, or for	11:38:38
19	the whole city for the Bayside district?	11:38:42
20	MS. HARLESS: Objection to form.	11:38:44
21	THE WITNESS: But according to this	11:38:46
22	table, those numbers seem correct, yes.	11:38:47

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

95

1	BY MR. BOYNTON:	11:38:49
2	Q Okay. So do you deem between	11:38:49
3	36.8 percent and 44.2 percent of black support in	11:38:53
4	a race insignificant?	11:38:58
5	A In a race featuring just two	11:39:03
6	candidates?	11:39:05
7	Q Yes.	11:39:06
8	A Where my goal is to identify a	11:39:08
9	candidate of choice, yes.	11:39:10
10	Q Well, I'm not asking if he's a	11:39:12
11	candidate of choice.	11:39:13
12	You've said that the Bayside 2010	11:39:14
13	election is not probative, correct?	11:39:18
14	A That's correct.	11:39:20
15	Q But Mr. Furman received 44.2 percent of	11:39:21
16	the black vote under your gold standard, correct?	11:39:24
17	MS. HARLESS: Objection to form.	11:39:27
18	BY MR. BOYNTON:	11:39:28
19	Q Under ecological inference, which	11:39:28
20	you've identified as the gold standard, correct?	11:39:30
21	A Correct.	11:39:33
22	Q What about Mr. Furman's vote totals	11:39:37

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

96

1 there caused you to remove that election from your 11:39:40

2 consideration? 11:39:42

3 A Because as a pattern over the course of 11:39:43

4 four elections, he was not ever the minority 11:39:46

5 candidate of choice. 11:39:51

6 Q If that race was deemed probative, you 11:39:58

7 would agree that Mr. Jones was the minority 11:40:00

8 candidate of choice in your original report? 11:40:02

9 A I have checked that box, and I -- but I 11:40:07

10 would reserve the right to confirm that. If 11:40:10

11 you'll note that these estimates don't have 11:40:12

12 asterisks next to them, which is my designation 11:40:16

13 that there's a statistically significant 11:40:18

14 difference between the vote totals, and I'd want 11:40:20

15 to confirm that they're actually different. 11:40:24

16 Q And if they were different, that might 11:40:28

17 suggest that Furman was actually the minority 11:40:30

18 candidate of choice in that race? 11:40:32

19 A No. If they were different, it would 11:40:33

20 suggest Furman definitely wasn't the candidate of 11:40:36

21 choice. 11:40:41

22 Q Comparing the 2010 Bayside race -- 11:41:17

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

97

1	A	Uh-huh.	11:41:25
2	Q	-- on page 27 to the 2014 Princess Anne	11:41:25
3		race on page 19 --	11:41:34
4	A	Yep.	11:41:41
5	Q	-- you would agree that under your	11:41:41
6		numbers, Mr. Furman had a higher percentage of	11:41:43
7		black and all-minority support than Mr. Burton?	11:41:48
8	A	I would agree that they're similar.	11:41:54
9	Q	But Mr. Burton's race was probative and	11:41:56
10		Mr. Furman's race was not probative under your	11:42:00
11		analysis?	11:42:03
12	A	That's correct. Furman was dropped	11:42:06
13		because of the habitual pattern of not gaining	11:42:07
14		minority-candidate-of-choice status.	11:42:11
15	Q	He did not have that habitual pattern	11:42:13
16		as of 2010, correct? He developed that after	11:42:15
17		2010?	11:42:19
18		MS. HARLESS: Objection to form.	11:42:19
19		BY MR. BOYNTON:	11:42:21
20	Q	You can answer.	11:42:21
21	A	From the races that I evaluated, that's	11:42:25
22		correct.	11:42:27

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

98

1	Q	He --	11:42:28
2	A	The first races that I evaluated were	11:42:28
3		in 2008, and he was not in that election.	11:42:30
4	Q	So the first race Mr. Furman was in	11:42:34
5		that you evaluated was the 2010 Bayside race,	11:42:36
6		correct?	11:42:40
7	A	That's correct.	11:42:41
8	Q	Did you need to double your at-large	11:42:51
9		numbers for 2010?	11:42:53
10	A	I did not.	11:42:54
11	Q	Why not?	11:42:55
12	A	Because the baseline number of votes	11:42:56
13		that I used accounted for the fact that two people	11:42:58
14		were elected.	11:43:01
15	Q	And that differs from your approach to	11:43:04
16		2014 and 2018?	11:43:06
17	A	I used a different column of the	11:43:07
18		summary, which was the summary of each candidate's	11:43:08
19		vote added up, as opposed to the summary of all	11:43:13
20		votes cast. Once I was alerted to that fact, I	11:43:16
21		used that new denominator, which doubled these	11:43:19
22		numbers with no change.	11:43:23

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

99

1	Q	Why was Ms. Bellitto not the black	11:43:27
2		candidate of choice in the at-large race, or a	11:43:30
3		black candidate of choice in the at-large race?	11:43:37
4	A	Well, Mr. Jackson is clearly the black	11:43:37
5		candidate of choice, and the second, because there	11:43:40
6		are two candidates chosen, there would be two	11:43:44
7		candidates of choice, and the black estimated	11:43:48
8		support for Cabiness and was 38.5 and for Bellitto	11:43:50
9		was 38, and that's not clear who would have been	11:43:54
10		the black candidate of choice.	11:43:57
11	Q	It's possible that Ms. Bellitto was the	11:43:59
12		black candidate of choice in that race given the	11:44:01
13		closeness of the numbers?	11:44:03
14	A	It's possible, but they're	11:44:04
15		indistinguishable.	11:44:09
16	Q	Ms. Bellitto prevailed in that race,	11:44:19
17		correct?	11:44:22
18	A	Yes, Ms. Bellitto prevailed, and I	11:44:26
19		think it's worth -- I mean, you've identified the	11:44:29
20		difference between these two just as the	11:44:32
21		ecological inference estimate, but there are other	11:44:34
22		estimates.	11:44:37

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

100

1	So if you look at the ecological	11:44:38
2	regression, Cabiness earned more than Bellitto for	11:44:40
3	the black estimate if that's what -- if that's our	11:44:46
4	focus, so that's -- part of the evaluation is	11:44:48
5	looking for this pattern across all three methods.	11:44:50
6	Q It remains your position, though, that	11:44:55
7	the EI method is your gold standard, correct?	11:44:57
8	A I'm eval- -- whether or not I	11:45:01
9	identified that that way, I'm evaluating these	11:45:04
10	determinations of candidate of choice using all	11:45:07
11	three methods. It's not surplusage. They're all	11:45:10
12	in there because I'm looking for a pattern.	11:45:14
13	Q Mr. Jackson was a minority candidate of	11:45:18
14	choice in the at-large election, correct?	11:45:20
15	A Correct.	11:45:23
16	Q He did not prevail, correct?	11:45:23
17	A Correct.	11:45:25
18	Q That entire race, the at-large election	11:45:26
19	of 2010, was probative?	11:45:28
20	A Yes.	11:45:30
21	Q So if Ms. Bellitto was the minority	11:45:31
22	candidate of choice for blacks as well as all	11:45:34

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

101

1	minority, that would be a second successful	11:45:36
2	minority candidate of choice in that race,	11:45:38
3	correct?	11:45:40
4	A That's correct, if she were.	11:45:40
5	Q In the Princess Anne race, you identify	11:45:46
6	Ms. Bullock as the minority candidate of choice	11:45:48
7	for both blacks and all minority, correct?	11:45:52
8	A Correct.	11:45:55
9	Q And she did not prevail?	11:45:55
10	A She did not.	11:45:57
11	Q And you find that to be a probative	11:45:58
12	race?	11:46:03
13	A Yes.	11:46:04
14	Q Turning to 2008, you found how many	11:46:21
15	probative races in that election?	11:46:27
16	A Two probative elections.	11:46:29
17	Q Okay. The first is the at-large?	11:46:31
18	A Correct.	11:46:33
19	Q And the minority candidate of choice	11:46:34
20	was whom?	11:46:35
21	A I think Ms. Georgia Allen. I believe	11:46:37
22	that's her first name.	11:46:40

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

102

1	Q	And she's a Plaintiff in the case?	11:46:41
2	A	Okay.	11:46:45
3	Q	Did you know that?	11:46:45
4	A	I did not.	11:46:46
5	Q	Okay. And she did not prevail?	11:46:46
6	A	She did not prevail.	11:46:50
7	Q	And you find that race probative?	11:46:51
8	A	Yes.	11:46:54
9	Q	Tell me about the Kempsville race. You	11:46:54
10		have two individuals who you identify as black	11:46:56
11		candidates, correct?	11:47:00
12	A	Yep.	11:47:01
13	Q	Mr. Flores and Mr. Jackson, correct?	11:47:01
14	A	That's correct.	11:47:05
15	Q	And you have -- as I read your checked	11:47:06
16		boxes, you have both of them identified as the	11:47:10
17		all-minority candidate of choice; is that correct?	11:47:13
18	A	So just -- I need to point out a typo	11:47:16
19		in this table.	11:47:20
20	Q	Okay.	11:47:21
21	A	If you look at the -- the page	11:47:21
22		immediately preceding, on page 28, the exact	11:47:24

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

103

1	numbers are reproduced except for Flores in the	11:47:28
2	middle row on the two right columns -- maybe all	11:47:33
3	three columns, excuse me.	11:47:38
4	So you'll notice that on page 28, the	11:47:40
5	all-minority support is 41, 46, and 44. That	11:47:44
6	is -- those are the correct numbers. I've	11:47:51
7	double-checked that upon noticing this	11:47:53
8	incongru- -- incongruity.	11:47:55
9	Q Okay.	11:47:59
10	A So I just want to make sure at least	11:48:00
11	we're talking about the same numbers.	11:48:01
12	Q So with those being the correct numbers	11:48:03
13	under your analysis, who is the all-minority	11:48:05
14	candidate of choice in that election?	11:48:08
15	A I've checked both, but their vote total	11:48:12
16	separately is not distinguishable. I highlighted	11:48:20
17	the fact, because together --	11:48:22
18	THE REPORTER: I don't think you're	11:48:25
19	supposed to write on that.	11:48:26
20	THE WITNESS: Oh, sorry.	11:48:29
21	BY MR. BOYNTON:	11:48:29
22	Q I prefer you not to unless --	11:48:30

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Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

104

1	A	Okay. I will not do that. Sorry about	11:48:31
2		that. Thank you.	11:48:33
3	Q	And just let the record reflect that he	11:48:36
4		made some notes on page 20 --	11:48:38
5	A	28.	11:48:41
6	Q	-- 28. It appears to be circling the	11:48:42
7		vote totals that he's relying upon for the next	11:48:44
8		page.	11:48:47
9		Is that correct, sir?	11:48:48
10	A	Correct.	11:48:49
11	Q	Okay. That resolves that.	11:48:49
12		But based upon relying on the numbers	11:48:53
13		from page 28, what do you conclude about the	11:48:55
14		minority candidate of choice for the Kempsville	11:48:59
15		2008 election?	11:49:02
16	A	The minority voters preferred to have	11:49:08
17		Jackson or Flores be elected.	11:49:11
18	Q	Was there a single minority candidate	11:49:14
19		of choice in that race?	11:49:17
20	A	Statistically, I can't distinguish	11:49:19
21		between the minority support for Jackson and	11:49:21
22		Flores, but their support's extremely high	11:49:24

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

105

1 compared to Diezel, and clearly, you know, except 11:49:26
2 for white bloc voting, the result of this election 11:49:27
3 would have been a black candidate. 11:49:31

4 Q Can you have more than one minority 11:49:32
5 candidate of choice for a single seat? 11:49:34

6 A No, you cannot. 11:49:37

7 Q Does this mean that where you have two, 11:49:39
8 that means you really have an unknown? 11:49:41

9 A Well, I should put a different marker 11:49:45
10 to raise the fact that this is a unique situation. 11:49:47
11 So I don't think it's correct to say there's no 11:49:50
12 minority candidate of choice, and I agree with you 11:49:52
13 that it's probably not correct to say there's two 11:49:55
14 minority candidates of choice for one race. 11:50:00

15 But the pattern of support is so strong 11:50:03
16 for Jackson and Flores among minority voters, and 11:50:04
17 their defeat, both of them, was due to white bloc 11:50:09
18 voting, which is a probative inquiry in my mind to 11:50:13
19 whether the preferences of minority voters were 11:50:16
20 defeated due to white bloc voting. 11:50:21

21 Q You would agree that the combined total 11:50:25
22 vote of Jackson and Flores would have defeated 11:50:27

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

106

1	Diezel, correct?	11:50:29
2	A Yes.	11:50:30
3	Q In generating your original report, you	11:51:39
4	developed estimates using your three methods for	11:51:42
5	black voters alone, correct?	11:51:45
6	A Correct.	11:51:48
7	Q And for all-minority voters, correct?	11:51:49
8	A Correct.	11:51:51
9	Q How did you get the all-minority	11:51:52
10	voters' number?	11:51:53
11	A That number comes from the Citizen	11:51:54
12	Voting Age Population estimates of the ACS.	11:51:57
13	Q That data point places Hispanic, Asian,	11:52:04
14	black, and other minority voters all in one bloc,	11:52:07
15	correct?	11:52:11
16	A Correct.	11:52:11
17	Q Can you infer anything about cohesion	11:52:12
18	from the fact that those data points are set forth	11:52:14
19	that way in your origin data from ACS?	11:52:17
20	A The exact same way I look at black	11:52:24
21	support, I'm looking for the most preferred	11:52:28
22	candidate of those -- that coalition.	11:52:30

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

107

1	Q	But they are combined for statistical	11:52:33
2		purposes. It doesn't mean they're cohesive	11:52:36
3		necessarily?	11:52:38
4	A	As a group -- as a coalition, they are	11:52:40
5		supporting the candidate in the same logic. I use	11:52:41
6		the same logic to evaluate who's a minority	11:52:44
7		candidate of choice.	11:52:47
8	Q	I understand, but you can't tell from	11:52:47
9		the all-minority group whether there's a	11:52:49
10		dispersion between black support, Asian support,	11:52:52
11		and Hispanic support, correct?	11:52:56
12		MS. HARLESS: Objection to form.	11:52:59
13		BY MR. BOYNTON:	11:53:00
14	Q	You can answer.	11:53:00
15	A	I definitely -- I don't -- the estimate	11:53:06
16		is an estimate of the coalition working together.	11:53:10
17	Q	Exactly.	11:53:13
18		So you don't know from that data how	11:53:13
19		the various members of the coalition perform as	11:53:17
20		against each other?	11:53:20
21		MS. HARLESS: Objection to form.	11:53:21
22		THE WITNESS: I -- I don't know the --	11:53:24

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

108

1	I have not presented an estimate in the original	11:53:26
2	report of Asian support, for example, or Hispanic	11:53:28
3	support separately. It's not -- because of their	11:53:31
4	small size, which I'm sure we're getting to,	11:53:35
5	there's no reliable way to make an independent	11:53:37
6	assessment, but as a coalition they -- they --	11:53:42
7	they seem to be -- well, I should -- I -- I use	11:53:45
8	the same logic to evaluate them as a coalition as	11:53:49
9	I did black support, which is a large population.	11:53:53
10	BY MR. BOYNTON:	11:53:55
11	Q Does the all-minority voter estimate	11:53:58
12	prove anything in and of itself about Asian	11:54:01
13	voting?	11:54:05
14	A In my opinion, it means that Asian	11:54:08
15	voting and black voting and Hispanic voting	11:54:10
16	together are voting in this way, as it appears on	11:54:13
17	the report.	11:54:16
18	Q Can you tell anything about Asian	11:54:18
19	voters, in particular, from that number?	11:54:20
20	A I cannot generate a point estimate for	11:54:24
21	them.	11:54:26
22	Q Same thing for Hispanics, correct?	11:54:26

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

109

1	A	The same thing for Hispanics.	11:54:28
2	Q	Define for me cohesion.	11:54:30
3	A	Well, the idea of cohesion is that	11:54:35
4		minority voters prefer a candidate, their most	11:54:39
5		preferred candidate, and that's what I'm looking	11:54:43
6		for.	11:54:46
7	Q	When you're talking about three	11:54:49
8		different distinct minority groups, what does	11:54:51
9		cohesion mean to you?	11:54:56
10	A	So I think about three distinct	11:54:57
11		minority groups as a -- in terms of the language	11:55:00
12		of coalition?	11:55:02
13	Q	Well, no. Whether -- I'm asking you	11:55:03
14		about the use of the word cohesion to define the	11:55:04
15		behavior of three distinct minority groups.	11:55:09
16	A	Then my definition would be each group	11:55:10
17		has the most preferred candidate, and the most	11:55:16
18		preferred candidate of each three groups is the	11:55:20
19		same.	11:55:24
20	Q	And when you say "most preferred,"	11:55:25
21		you're not requiring a 50 percent threshold for	11:55:28
22		any of those three groups, correct?	11:55:31

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

110

1	A	Correct.	11:55:33
2	Q	It's solely what it would take to	11:55:33
3		prevail?	11:55:37
4	A	Correct.	11:55:37
5		MR. BOYNTON: It hasn't been that long,	11:56:12
6		but let's take a quick break because I'm	11:56:15
7		transitioning, anyway, to the rebuttal report.	11:56:17
8		MR. HEBERT: Okay.	11:56:20
9		THE WITNESS: Okay.	11:56:20
10		THE VIDEOGRAPHER: Please stand by.	11:56:22
11		This marks the end of Disc 1 in the	11:56:23
12		videotaped deposition of Douglas Spencer. We are	11:56:25
13		off the record at 11:55 a.m.	11:56:28
14		(A recess was taken.)	11:57:12
15		THE VIDEOGRAPHER: Here begins Disc	12:06:37
16		Number 2 in the videotaped deposition of Douglas	12:06:38
17		Spencer. We are back on the record at 12:05 p.m.	12:06:41
18		BY MR. BOYNTON:	12:06:45
19	Q	Dr. Spencer, if I can turn your	12:06:48
20		attention now to your rebuttal report, and that is	12:06:50
21		Exhibit 2, and I believe it's in front of you.	12:06:55
22		You prepared that report on or around	12:06:58

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Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

111

1	August 26th, 2019, correct?	12:07:01
2	A That's correct.	12:07:04
3	Q And you were responding to a response	12:07:06
4	report from a Dr. Quentin Kidd, correct?	12:07:09
5	A Correct.	12:07:12
6	Q Okay. Now, you have a Summary section	12:07:12
7	there on page 2, "Between 2008-2018 there were	12:07:17
8	sixteen opportunities for a black candidate to win	12:07:22
9	a seat on the Virginia Beach City Council."	12:07:24
10	So what you're saying is, I think,	12:07:28
11	there are nineteen originally, three of whom were	12:07:29
12	Furman, and you discount those three	12:07:33
13	opportunities, correct?	12:07:35
14	A Correct.	12:07:37
15	Q So if Furman was a candidate -- well,	12:07:37
16	Mr. Furman was a black candidate for City Council,	12:07:41
17	correct?	12:07:44
18	A Correct.	12:07:44
19	Q And he ran three times, correct?	12:07:45
20	A Correct.	12:07:46
21	Q And adding those three efforts in, you	12:07:47
22	would have 19 opportunities, correct?	12:07:49

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Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

112

1	A	That's correct.	12:07:51
2	Q	Okay. You note that in ten of these	12:07:51
3		cases, the black candidate was the candidate of	12:08:01
4		choice for minorities.	12:08:04
5		Can you tell me which ten cases? And	12:08:07
6		it may take you a minute to put all that together,	12:08:09
7		but it gets -- bless you -- to be an exercise.	12:08:12
8	A	Thank you.	12:08:19
9		Okay. I believe it's the ten	12:08:20
10		candidates listed on page 8 of the response	12:09:39
11		report.	12:09:41
12	Q	Well, let's look at that chart for a	12:09:58
13		second.	12:10:00
14	A	Okay.	12:10:01
15	Q	You say that in ten of these races, the	12:10:02
16		black candidate was the candidate of choice for	12:10:05
17		minority voters, but I'm looking at "Minority	12:10:07
18		preferred," and I'm seeing one, two, three, four,	12:10:10
19		five, six, seven yeses, not ten.	12:10:13
20	A	Yeah, on this table (indicating).	12:10:17
21	Q	So what are you referring to on page 2	12:10:19
22		where you say, "In ten of these cases the black	12:10:23

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

113

1	candidate was the candidate of choice for minority	12:10:26
2	voters"?	12:10:28
3	A I'm referring to their	12:10:29
4	minority-preferred status in my original report.	12:10:31
5	Q So this is the original report?	12:10:33
6	A That's correct.	12:10:36
7	Q Ten, okay.	12:10:38
8	And then obviously your chart on	12:10:38
9	page 8, which we'll get to, disagrees with that?	12:10:41
10	A Yes.	12:10:45
11	Q So which -- if you're looking at your	12:11:19
12	original report, and feel free to refer back to	12:11:22
13	it, Exhibit 1, who are the ten cases we're	12:11:24
14	referring to?	12:11:26
15	A They are the ten candidates in the	12:11:32
16	table on page 8. So that's Rouse in the 2018	12:11:33
17	At-large; Wooten, 2018 Centerville; Ross-Hammond,	12:11:37
18	Kempsville 2016, Kempsville 2012; Cabiness, 2014	12:11:42
19	Rose Hall; Sherrod, 2011 At-large Special	12:11:47
20	Election; Jackson, 2010 At-large; Bullock, 2010	12:11:52
21	Princess Anne; Allen, 2008 At-large; and Flores,	12:11:57
22	Kempsville 2008.	12:12:03

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

114

1	Q	So you are counting Flores as one of	12:12:10
2		the original ten minority candidates of choice	12:12:13
3		notwithstanding what we discussed earlier today?	12:12:18
4	A	Let me look at that quickly.	12:12:20
5		Yes, I am.	12:12:28
6	Q	Why is that?	12:12:30
7	A	Taken across all three estimates of	12:12:34
8		homogeneous precinct, ecological regression, and	12:12:37
9		King's ecological inference, the support for	12:12:39
10		Flores was higher among all minorities than the	12:12:42
11		estimates for all-minority support of Andrew	12:12:45
12		Jackson even though the ecological inference	12:12:47
13		number was similar.	12:12:49
14	Q	And in this instance when you're saying	12:12:54
15		minority candidate of choice, you're saying for	12:12:56
16		all minority voters, correct?	12:12:58
17	A	Correct.	12:12:59
18	Q	Okay. Which of the ten lost due to	12:13:00
19		white bloc voting?	12:13:12
20	A	Well, all of the candidates marked on	12:13:42
21		Table 1, page 8 who didn't win their election of	12:13:45
22		the minority candidates.	12:13:49

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

115

1	Q	So looking backwards, that is Flores?	12:13:57
2	A	Excuse me.	12:14:03
3		Yes.	12:14:03
4	Q	Allen?	12:14:05
5	A	Yes.	12:14:06
6	Q	Bullock?	12:14:08
7	A	Yes.	12:14:09
8	Q	Jackson?	12:14:11
9	A	Yes.	12:14:13
10	Q	Sherrod?	12:14:16
11	A	Yes.	12:14:17
12	Q	Not Ross-Hammond in 2012?	12:14:18
13	A	Correct.	12:14:22
14	Q	Cabiness?	12:14:22
15	A	Yes.	12:14:24
16	Q	Ross-Hammond in 2016?	12:14:25
17	A	Yes.	12:14:26
18	Q	And you acknowledge that there are	12:14:34
19		three white candidates who are candidates of	12:14:35
20		choice for minority voters, correct?	12:14:35
21	A	Yes, the three that we identified	12:14:37
22		previously.	12:14:39

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

116

1	Q	And that is Council Candidate White in	12:14:40
2		2018?	12:14:44
3	A	Yes.	12:14:44
4	Q	Council Candidate Henley in 2014?	12:14:45
5	A	Yes.	12:14:48
6	Q	And Council Candidate Bellitto in 2010?	12:14:48
7	A	That's correct.	12:14:58
8	Q	And --	12:14:59
9	A	Although, as we discussed earlier,	12:15:00
10		looking across all the different patterns,	12:15:02
11		including ecological regression and inference, the	12:15:05
12		difference between Bellitto and Cabiness, I want	12:15:08
13		to reserve the right to test whether they were	12:15:10
14		actually statistically different to support the	12:15:13
15		Bellitto finding.	12:15:15
16	Q	Okay. But Bellitto and Henley both	12:15:16
17		prevailed?	12:15:20
18	A	Correct.	12:15:21
19	Q	So here you offer on page 2 your	12:15:34
20		statement as to cohesion, "Minority voters are	12:15:42
21		cohesive when their most preferred candidate earns	12:15:44
22		enough minority support to win an election,"	12:15:49

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

117

1	correct?	12:15:51
2	A Correct.	12:15:53
3	Q Based on your original report, how did	12:15:55
4	you determine that Asian voters specifically are	12:15:58
5	cohesive in these ten races?	12:16:06
6	A I didn't generate a separate estimate	12:16:11
7	for Asian support.	12:16:13
8	Q How did you determine whether Hispanic	12:16:16
9	voters are cohesive in your original report as to	12:16:21
10	these ten races?	12:16:26
11	A In my original report, I provided an	12:16:28
12	estimate of all minority voters together.	12:16:30
13	Q Because it's not reliable to try to	12:16:33
14	break down the numbers under those three	12:16:35
15	approaches to Asian and Hispanic voters, correct?	12:16:39
16	A That was the argument that I made that	12:16:44
17	still is my opinion.	12:16:47
18	Q Now, you also talk about minority	12:17:01
19	coalitional voting, and your definition for that	12:17:05
20	in your rebuttal report is, "Minority groups are	12:17:08
21	considered a coalition when they share candidate	12:17:13
22	preferences and their individual group support is	12:17:17

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

118

1	sufficient to elect their preferred candidate,"	12:17:20
2	correct?	12:17:25
3	A That, as a group, their support is	12:17:28
4	sufficient to elect their preferred candidate.	12:17:32
5	Q Their individual group support is	12:17:34
6	sufficient?	12:17:35
7	A I think that statement's correct.	12:17:40
8	Q What do you mean by "individual group	12:17:43
9	support"?	12:17:45
10	A In the -- in the context of identifying	12:17:59
11	what a coalition is, the idea is that the	12:18:09
12	groups -- each of these group supports a candidate	12:18:13
13	of choice that's the same. Their most preferred	12:18:17
14	candidate of choice is the same.	12:18:21
15	Q And you say each group. Does that mean	12:18:22
16	Asians, versus Hispanics, versus --	12:18:25
17	A Yes.	12:18:27
18	Q -- African-Americans?	12:18:27
19	Okay. Explain the difference between	12:18:32
20	your use of the word "coalition" here -- and I am	12:18:40
21	referring to page 2 of your rebuttal report -- and	12:18:45
22	your use of the word "cohesion" here on page 2 of	12:18:48

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

119

1	your rebuttal report.	12:18:51
2	A Minority political cohesion is a	12:18:55
3	statement about minority voters generally that	12:19:01
4	their preferred candidates would win. Coalition	12:19:04
5	voting is that the candidate preferences are	12:19:08
6	shared among each individual group.	12:19:11
7	Q How were you able to determine the	12:19:23
8	individual group support in your original report?	12:19:24
9	A I did not attempt to do that.	12:19:29
10	Q You then on page 3 have a data	12:19:48
11	clarification?	12:19:51
12	A Yes.	12:19:51
13	Q Explain that first item of	12:19:51
14	clarification with respect to your source of	12:19:59
15	Citizen Voting Age Population.	12:20:01
16	A So my understanding of Dr. Kidd's	12:20:03
17	report, in one of the footnotes there's an	12:20:07
18	assertion that I relied on data from Mr. Anthony	12:20:12
19	Fairfax to build my racially polarized voting	12:20:15
20	analysis, and I don't know where that assertion	12:20:18
21	came from, but I just wanted to clarify that I	12:20:21
22	downloaded my own CVAP data from the census and	12:20:23

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

120

1	used that myself.	12:20:27
2	Q When you say "from the census," you	12:20:28
3	mean the American Community Survey?	12:20:30
4	A Yes.	12:20:32
5	Q Please explain your second note with	12:20:42
6	regard to precinct files.	12:20:43
7	A So the Voter Tabulation Districts,	12:20:46
8	these VTDs that are generated through census, are	12:20:48
9	the files I relied on as my precinct shapefiles.	12:20:54
10	They have them historically.	12:21:00
11	The difficulty, as I pointed out, was	12:21:02
12	that in 2016, Virginia Beach expanded from 94	12:21:06
13	precincts to 98 precincts, and the Virginia Beach	12:21:09
14	Geographic Information Systems office didn't have	12:21:13
15	those shapefiles for the 98, but they did for the	12:21:18
16	100 when Virginia Beach expanded to a hundred in	12:21:22
17	2018.	12:21:23
18	So for 2018, I used the current	12:21:24
19	shapefiles from the Virginia Beach GIS office.	12:21:26
20	From 2008 through 2014, I used the census Voter	12:21:30
21	Tabulation Districts of the 94 precincts, which	12:21:37
22	were stable over that time period. And 2016,	12:21:39

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

121

1	there were four precincts that were listed in the	12:21:42
2	election returns in Virginia Beach that I do not	12:21:46
3	have a Voter Tabulation District for.	12:21:49
4	Q Do you know if in Virginia Beach the	12:21:51
5	Voter Tabulation Districts exactly overlap the	12:21:54
6	actual precincts?	12:21:57
7	A They did in 2018 when I compared them.	12:21:58
8	Q Before that, you can't tell us?	12:22:03
9	A I can't tell, because Virginia Beach	12:22:05
10	GIS doesn't have those files.	12:22:06
11	Q And then you make reference to the vote	12:22:12
12	totals for at-large elections, the doubling that	12:22:14
13	we talked about for 2018 and 2014?	12:22:17
14	A Yes.	12:22:20
15	Q And exp- -- I'm sorry, go ahead.	12:22:20
16	A No. Finish your question.	12:22:23
17	Q I would just ask that, because, you	12:22:24
18	know, the way you explained it, I didn't	12:22:27
19	understand earlier --	12:22:29
20	A Okay.	12:22:30
21	Q -- why you needed to make the doubling	12:22:30
22	of the at-large seats for 2018 and 2014 but not	12:22:34

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

122

1 2010. If you would explain that piece of it. 12:22:37

2 A So because there were two seats 12:22:41

3 available to be earned, the number of ballots that 12:22:43

4 are cast are reported differently by Virginia -- 12:22:48

5 by Virginia Board of Elections. So in one column 12:22:51

6 it's the number of ballots that were cast, and in 12:22:54

7 one column it's the number of votes that were 12:22:57

8 cast. 12:22:59

9 And for 2014 and 2018, I had divided 12:23:00

10 the vote totals for each candidate by the total 12:23:03

11 number of ballots cast, which is one per person, 12:23:06

12 but that didn't account for the fact that people 12:23:10

13 voted for two seats. 12:23:12

14 So I replaced the denominator with the 12:23:14

15 number of votes that were cast, which was 12:23:17

16 double -- essentially double what that number was. 12:23:19

17 It's not exactly double, because it would account 12:23:22

18 for people who voted for one candidate and not 12:23:25

19 another. That's how that would be baked into that 12:23:27

20 measure. 12:23:29

21 Q But in 2010, you used a different 12:23:30

22 process? 12:23:32

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

123

1	A	In 2010, I correctly -- I used the	12:23:33
2		denominator of vote totals, which is the correct	12:23:35
3		way to do it, and I used the wrong denominator --	12:23:38
4		I don't want to say "wrong denominator," but I	12:23:42
5		used a different denominator in 2014 and 2018.	12:23:44
6	Q	The -- the -- the error did not extend	12:23:46
7		to 2010?	12:23:48
8	A	It did not, no.	12:23:49
9		Now 2018 and 2014 are congruent with	12:23:51
10		exactly how I conducted 2010.	12:23:54
11	Q	And those changes to double 2014 and	12:24:01
12		2018 did not yield any changes to your opinions in	12:24:04
13		the original report as to minority candidates of	12:24:08
14		choice?	12:24:11
15	A	Exactly. It did not.	12:24:13
16	Q	It did not lead to any changes in	12:24:15
17		regard to probative races?	12:24:18
18	A	They did not.	12:24:23
19	Q	Turning your attention to page 7 of the	12:25:52
20		rebuttal report, you in the rebuttal report	12:25:55
21		generate a table called Table 1, correct?	12:26:07
22	A	Yes.	12:26:12

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

124

1 Q And that is displayed on page 8 of the 12:26:12
2 report? 12:26:16

3 A Correct. 12:26:16

4 Q And that table was generated using an 12:26:20
5 approach called equivalence testing; is that 12:26:22
6 correct? 12:26:26

7 A The table wasn't generated using 12:26:28
8 equivalence testing, but it reports the difference 12:26:31
9 between groups using an equivalence approach. 12:26:35

10 Q Okay. Tell me what equivalence testing 12:26:40
11 is in this context. 12:26:47

12 A So the entire question boils down to -- 12:26:50
13 my report is completely focused on comparing 12:26:53
14 different groups of individuals to each other, and 12:26:57
15 there are complications in doing that in trying to 12:27:03
16 figure out is one group really different than 12:27:09
17 another group. 12:27:11

18 Equivalence testing is one way to ask 12:27:12
19 is Group A significantly different than Group B, 12:27:15
20 and the logic of the equivalence test says assume 12:27:19
21 that the groups are different, and then see 12:27:25
22 whether or not what you find about those groups 12:27:29

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

125

1	overlaps to a degree that you can't be confident	12:27:31
2	that they're different anymore. Now it's just as	12:27:34
3	likely they're the same as it was they were	12:27:36
4	different, and that's the logic.	12:27:39
5	Q Just as likely that they are the same	12:27:41
6	as different?	12:27:44
7	A No. The proper language would be to	12:27:44
8	say if my baseline hypothesis is that they're	12:27:47
9	different, I have enough evidence that they're not	12:27:53
10	different that I can reject that hypothesis.	12:27:55
11	Q So describe the process that leads to	12:28:06
12	Table 1.	12:28:08
13	A Okay. Well, I'll start procedurally	12:28:10
14	and then mechanically.	12:28:22
15	Q Perfect.	12:28:24
16	A Procedurally, I don't think Table 1 is	12:28:25
17	very meaningful, which is why I did not generate	12:28:27
18	it for my original report. I don't think the	12:28:30
19	estimates that are used in this table actually	12:28:32
20	mean much. I am not confident in their findings	12:28:35
21	at all, but I generated it in response to some	12:28:38
22	comments made by Dr. Kidd to try to -- to try to	12:28:41

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

126

1 point out exactly why I didn't do this in my 12:28:46
2 original report. So that's -- that's kind of 12:28:49
3 procedurally. 12:28:51

4 Mechanically, I estimated using an 12:28:53
5 ecological inference. It's not a customization, 12:28:55
6 but it's a different algorithm. There's two 12:29:03
7 different algorithms to use ecological inference. 12:29:06
8 There is an algorithm that's called R by C, 12:29:10
9 meaning row by column, and it allows the model to 12:29:12
10 generate a number for numerous races in the same 12:29:15
11 model. 12:29:21

12 But because the numbers are so small, 12:29:24
13 as I mentioned, the model also generates 12:29:26
14 confidence intervals, and the confidence intervals 12:29:29
15 are enormous, and that's what I used to generate 12:29:32
16 the estimates of each of these groups. 12:29:36

17 So now I have an estimate of Asians 12:29:39
18 that's 50 percent support for a candidate of plus 12:29:41
19 or minus 30 percent, so it could be anywhere 12:29:44
20 between 20 and 80. And I'm assuming that these 12:29:45
21 groups are different, but their confidence 12:29:47
22 intervals are so big that they're overlapping, and 12:29:49

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

127

1	I can't reject that they're different.	12:29:52
2	But if it's from 20 to 80, it's kind of	12:29:54
3	ridiculous to begin with, which is why I wouldn't	12:29:57
4	have done this originally, but that was what is	12:29:59
5	baked into this table.	12:30:02
6	Q Now, we had asked for some follow-up	12:30:23
7	data in response to receiving that table, and we	12:30:25
8	received -- let me make sure I give you a clean	12:30:30
9	copy.	12:30:36
10	A I'll keep it clean.	12:30:36
11	Q -- that which -- that match numbers	12:30:38
12	to -- yes, sir, I'll give you a clean one too.	12:30:42
13	MR. HEBERT: Thank you.	12:30:46
14	BY MR. BOYNTON:	12:30:47
15	Q -- match numbers to the checks and the	12:30:47
16	X's on your Chart 1.	12:30:49
17	Does that printout appear to be the	12:30:53
18	numbers that match Chart 1?	12:30:55
19	A As far as I remember, yes.	12:30:59
20	Q Okay.	12:31:00
21	MR. BOYNTON: I will mark that, then,	12:31:00
22	as Exhibit 4 -- 5.	12:31:03

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

128

1	(Spencer Exhibit 5 was marked for	12:31:07
2	identification and is attached to the transcript.)	12:31:07
3	BY MR. BOYNTON:	12:31:23
4	Q So as we look at that data, the first	12:31:23
5	column is -- well, the first column is Year, and	12:31:27
6	then you have the seat that was run for, the	12:31:31
7	candidate, and then you get to Threshold?	12:31:34
8	A Yes.	12:31:37
9	Q What does threshold mean?	12:31:37
10	A So threshold -- the way that I've	12:31:39
11	identified threshold in this case, and I think	12:31:41
12	it's more conservative than I need to -- I'll	12:31:43
13	explain in a minute -- is this was the vote total	12:31:46
14	of the winning candidate.	12:31:49
15	And so the logic is, in order to have	12:31:52
16	won in this election this year, Rouse or Wooten or	12:31:55
17	Ross-Hammond or Cabiness would have needed to earn	12:32:00
18	at least the support of what the -- exceed the	12:32:03
19	support of the winner.	12:32:06
20	The reason why I say that's	12:32:08
21	conservative is that if you see, for example, in	12:32:09
22	Wooten Centerville, the threshold is 62. I	12:32:13

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

129

1	believe that there were two candidates in that	12:32:17
2	race, Wooten and Wray, maybe there was a third	12:32:19
3	candidate. Let me come up with a better example.	12:32:26
4	Let's look at Ross-Hammond in	12:32:36
5	Kempsville, 2016. I've listed a threshold of	12:32:37
6	59.4, because that's the vote total that Abbott	12:32:40
7	earned, but in a two-candidate race, I think it's	12:32:45
8	also compelling to state a threshold of 50 percent	12:32:50
9	plus one in order to have won.	12:32:53
10	So these thresholds in every case are	12:32:56
11	larger than -- than a plurality of votes would be	12:32:58
12	needed to win, but that's where the number itself	12:33:02
13	comes from, is the winning candidate's total in	12:33:05
14	that race.	12:33:08
15	Q Across all races -- I'm sorry, across	12:33:10
16	all ethnic groups, that's total vote percentage,	12:33:12
17	not a breakdown of a --	12:33:16
18	A That's right. So Rouse earned	12:33:18
19	45.2 percent of the vote in Virginia Beach when he	12:33:19
20	won, yes. And for a person who lost, like	12:33:24
21	Ross-Hammond in Kempsville, 59.4 percent was the	12:33:26
22	overall vote total for her opponent.	12:33:29

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

130

1	Q	I see.	12:33:34
2		And so then we get to three columns,	12:33:34
3		and this -- well, we get six columns, but three	12:33:36
4		subheadings: Black, Hispanic, and Asian, correct?	12:33:41
5	A	Correct.	12:33:44
6	Q	"est." means the estimate?	12:33:44
7	A	Correct.	12:33:46
8	Q	Of what?	12:33:47
9	A	Of the ecological inference R-by-C	12:33:48
10		model.	12:33:52
11	Q	And those numbers will not necessarily	12:33:52
12		match your economic -- I'm sorry, your ecological	12:33:56
13		inference numbers from your first report, correct?	12:33:58
14	A	That's correct. In my first report, I	12:34:00
15		used the traditional ecological inference model.	12:34:03
16		I've compared the two, and they're substantively	12:34:07
17		similar within a few points but not exactly the	12:34:11
18		same.	12:34:13
19	Q	Why did you use the second ecological	12:34:14
20		inference model for this analysis in the rebuttal	12:34:16
21		report?	12:34:19
22	A	Because it's the only model that	12:34:20

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

131

1	permits the inclusion of multiple races at the	12:34:22
2	same time.	12:34:26
3	Q And you did not use that model for your	12:34:28
4	original report?	12:34:31
5	A That's correct.	12:34:33
6	Q Now, you have -- in addition to the	12:34:36
7	estimate for each ethnic group, you also have an	12:34:39
8	SE for each ethnic group.	12:34:45
9	What is SE?	12:34:48
10	A An SE is the standard error of the	12:34:49
11	estimate, which is another way of saying the	12:34:52
12	standard deviation of that estimate if that	12:34:55
13	estimate were in a bell curve. And standard	12:34:57
14	errors are used to generate confidence intervals,	12:35:01
15	which the confidence interval is essentially two	12:35:06
16	times the standard error. It's technically 1.96	12:35:07
17	times the standard error.	12:35:08
18	Q So you are assuming a normal	12:35:10
19	distribution of numbers?	12:35:12
20	A That's correct.	12:35:13
21	Q And so where, for example, in the -- in	12:35:16
22	the case of Mr. Jackson, 2010, you have a	12:35:28

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

132

1	11.6 percent of Hispanic support, correct --	12:35:38
2	A Correct.	12:35:47
3	Q -- as your point estimate?	12:35:47
4	A Correct.	12:35:48
5	Q You then have a standard deviation of	12:35:49
6	8.6 percent?	12:35:52
7	MS. HARLESS: Objection to form.	12:35:54
8	BY MR. BOYNTON:	12:35:56
9	Q Standard error?	12:35:56
10	A Correct, a standard error of	12:35:57
11	8.6 percent.	12:35:59
12	Q And that translates to what in terms of	12:36:00
13	confidence interval?	12:36:03
14	A It would be approximately twice, so	12:36:03
15	approximately 17 percent.	12:36:06
16	Q And so explain to me, then, the	12:36:08
17	analysis that takes these numbers that are	12:36:15
18	generated by the equivalence -- I'm sorry, the	12:36:18
19	ecological inference model that you used for the	12:36:24
20	rebuttal report and generates ranges for	12:36:27
21	consideration under equivalence testing?	12:36:31
22	A So the range here in Table 1 on page 8	12:36:34

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

133

1 refers to the estimate on Exhibit 5 for a 12:36:38
2 particular race, meaning racial minority group, 12:36:44
3 plus or minus 1.96 times the standard error. 12:36:48

4 So the example I gave earlier, if we 12:36:54
5 look at Asian support for Rouse, the estimate was 12:36:56
6 53 percent. That would be plus or minus two times 12:36:59
7 the standard error, or plus or minus 30 percent. 12:37:04
8 So the estimated Asian support for Rouse was 12:37:08
9 somewhere between 20 percent and 80 percent. 12:37:10

10 And then I look to see whether or not 12:37:14
11 there's enough overlap between 20 percent and 12:37:15
12 80 percent in the threshold to reject the 12:37:20
13 hypothesis that Asian support was not high enough 12:37:26
14 to reach that threshold. 12:37:30

15 Q I'm going to show you a document we've 12:37:44
16 prepared and ask you to digest it. It takes the 12:37:46
17 numbers that you are using in Exhibit 5 12:37:53
18 specifically for Hispanic support. 12:37:59

19 A Okay. 12:38:07

20 Q And then -- and I think it uses the SE 12:38:09
21 number as opposed to the CI number, but it's 12:38:16
22 attempting to have a visual representation of the 12:38:19

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

134

1	equivalence testing approach.	12:38:27
2	A Can you explain what the blue bar is?	12:38:30
3	Q Sure.	12:38:33
4	Blue is zero to a hundred. It's just	12:38:36
5	showing you a range of possible votes.	12:38:39
6	A Okay.	12:38:41
7	Q Green is the range of possible Hispanic	12:38:42
8	support using the equivalence testing range	12:38:48
9	factoring in a standard error.	12:38:54
10	A Okay. That makes sense now.	12:39:01
11	Q Okay.	12:39:02
12	MS. HARLESS: This says "confidence	12:39:04
13	interval," so --	12:39:05
14	BY MR. BOYNTON:	12:39:07
15	Q Okay. You can -- you're welcome to	12:39:07
16	mark on that however you want to correct it to	12:39:09
17	make it work. We're trying to understand the	12:39:12
18	concept here, and this is our effort at --	12:39:14
19	A Yep.	12:39:15
20	Q -- doing that.	12:39:15
21	A I welcome it.	12:39:16
22	Q So go ahead and make that correction	12:39:17

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

135

1	that that is not actually a confidence-interval	12:39:20
2	calculation. That is a standard-of-error	12:39:24
3	calculation.	12:39:27
4	A (Witness complies.)	12:39:31
5	Q We will ask you a question, though,	12:39:33
6	when we look at -- going back to your report, just	12:39:35
7	so we can understand it, we're using your Rouse	12:39:37
8	estimate on page 8.	12:39:40
9	A Yes.	12:39:42
10	Q And you say --	12:39:44
11	A Yes.	12:39:45
12	Q -- "the estimated Hispanic support has	12:39:46
13	a confidence interval of plus or minus 20.9"?	12:39:47
14	A That's correct. Sorry, it's correct	12:39:51
15	that I wrote it that way. It's a typo. This was	12:39:52
16	a typo that I recognized after writing this.	12:39:55
17	Q So the confidence interval is really	12:39:58
18	almost twice 20.9 percent?	12:39:59
19	A Exactly.	12:40:01
20	Q The confidence interval is 42 percent?	12:40:02
21	A Yeah, something like that.	12:40:04
22	Q Okay. So if we use confidence	12:40:07

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

136

1	intervals on this exhibit -- let's call it	12:40:09
2	Exhibit 6.	12:40:14
3	(Spencer Exhibit 6 was marked for	12:40:19
4	identification and is attached to the transcript.)	12:40:20
5	BY MR. BOYNTON:	12:40:20
6	Q -- the green bar gets bigger in both	12:40:20
7	directions, correct?	12:40:23
8	A Correct.	12:40:24
9	Q It doubles in size coming out from the	12:40:24
10	midpoint of 33.3 percent, which is your point	12:40:27
11	estimate?	12:40:30
12	A That's right.	12:40:31
13	Q So do you want to draw on that kind	12:40:36
14	of -- do you understand what we're doing here?	12:40:38
15	A You're -- you're -- it looks something	12:40:41
16	like this (indicating).	12:40:43
17	Q Okay.	12:40:45
18	A I mean, that's extreme, but...	12:40:45
19	Q It's a graphical depiction?	12:40:46
20	A Yep.	12:40:48
21	Q It would go out in either direction	12:40:49
22	equal amounts?	12:40:51

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

137

1	A	Yes.	12:40:52
2	Q	It's double the length of the whole	12:40:53
3		green thing?	12:40:54
4	A	That's correct.	12:40:56
5	Q	Okay. So your point estimate for	12:40:56
6		Hispanic support for Aaron Rouse was 33.3 percent,	12:41:00
7		and that is represented by the yellow line?	12:41:03
8	A	Yep, I see.	12:41:06
9	Q	Okay. And so my understanding of	12:41:08
10		equivalence testing's application to this is the	12:41:11
11		fact that the confidence interval is so large	12:41:15
12		means that the green bar gets pushed up high	12:41:19
13		enough to cross the threshold.	12:41:22
14	A	Not just across the threshold, but a	12:41:28
15		significant portion of the green bar is over the	12:41:30
16		threshold.	12:41:33
17	Q	Okay. So the bigger the confidence	12:41:33
18		interval --	12:41:35
19	A	Yep.	12:41:35
20	Q	-- the further it gets pushed -- pushed	12:41:35
21		over the threshold?	12:41:38
22	A	Correct.	12:41:39

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Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

138

1	Q	So the less reliable the number, the	12:41:39
2		better chance it has of going across the	12:41:42
3		threshold?	12:41:45
4	A	Totally.	12:41:46
5	Q	Okay. What amount of overlap are you	12:41:46
6		looking for to check the box, so to speak, that	12:41:57
7		equivalence testing has allowed the range to pass	12:42:05
8		the threshold?	12:42:08
9	A	So I'm using an overlap of 10 percent.	12:42:09
10	Q	And where did you come up with that?	12:42:14
11	A	That's based on the -- the statistical	12:42:16
12		rejection threshold in political science	12:42:25
13		literature is 5 percent in details of a -- of a	12:42:30
14		normal -- of a bell curve, two standard deviations	12:42:34
15		from the middle.	12:42:38
16	Q	Not specific to equivalence testing?	12:42:38
17		Just general --	12:42:40
18	A	Just the general logic of when you	12:42:41
19		would reject something in a -- in a normal bell	12:42:43
20		curve. And if there's 5 percent rejection rate in	12:42:45
21		each of these groups was the -- the overlap that I	12:42:49
22		asked for. If it's in -- if the rejection region	12:42:53

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

139

1 of both of these distributions overlaps more than 12:42:57
2 the 5 percent of each group, then -- then I would 12:43:00
3 reject. 12:43:04

4 Notice that the threshold has a 12:43:05
5 confidence interval of zero. So I'm looking for 12:43:07
6 actually 10 percent rejection in the range for 12:43:10
7 each candidate, which is twice as much as I would 12:43:14
8 normally need for rejecting at 5 percent cut-off. 12:43:17

9 Q But rejecting at this point is 12:43:21
10 equivalent to saying there's a possibility that 12:43:24
11 your null hypothesis is disproved? 12:43:29

12 A That's correct. 12:43:32

13 Q Okay. And the majority of the green 12:43:32
14 bar is below your threshold, correct? 12:43:35

15 A I -- I don't know. 12:43:41

16 Q I mean -- okay. Well, we can -- we can 12:43:45
17 step away from that example, yeah. 12:43:47

18 You have a bell curve, correct? 12:43:50

19 A Yes. 12:43:52

20 Q And so would you draw a bell curve 12:43:52
21 on -- on -- actually, I'm going to give you a 12:43:54
22 clean one. 12:43:56

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

140

1	A	Okay.	12:43:57
2	Q	I'll make it 7.	12:43:58
3	A	Okay.	12:43:59
4		(Spencer Exhibit 7 was marked for	12:43:59
5		identification and is attached to the transcript.)	12:44:04
6		BY MR. BOYNTON:	12:44:04
7	Q	And let's assume -- and, again, these	12:44:05
8		are representative numbers only, but let's assume	12:44:05
9		that on Exhibit 7 the green --	12:44:07
10	A	Yep.	12:44:10
11	Q	-- represents the actual range	12:44:10
12		demonstrated by the equivalence testing --	12:44:14
13	A	Okay.	12:44:17
14	Q	-- and the threshold remains the purple	12:44:17
15		line, and the point estimate remains the green.	12:44:21
16		So draw me a bell curve.	12:44:27
17	A	Something like that (indicating).	12:44:28
18	Q	Okay. So in that illustration, at	12:44:29
19		least, the portion of the range above the	12:44:31
20		threshold is very small?	12:44:35
21		MS. HARLESS: Objection to form.	12:44:37
22		BY MR. BOYNTON:	12:44:38

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

141

1 Q In that illustration. I'm sorry, I can 12:44:38

2 rephrase it. 12:44:41

3 This is purely an illustration, but, 12:44:41

4 you know, looking at that illustration, would you 12:44:43

5 tell me what the -- where the vast majority of the 12:44:45

6 data points are? Are they below or above the 12:44:56

7 threshold? 12:44:59

8 A Well, the threshold to identify is 12:44:59

9 10 percent. So if there's more than 10 percent 12:45:03

10 overlap above the threshold, we can reject the 12:45:06

11 null hypothesis, which means 90 percent in that 12:45:09

12 case would be the low. 12:45:13

13 Q Thank you. 12:45:13

14 MR. BOYNTON: We'll make that 7 if we 12:45:19

15 haven't already. 12:45:21

16 THE REPORTER: We already did. 12:45:23

17 BY MR. BOYNTON: 12:45:24

18 Q Tell me, have you used equivalence 12:45:24

19 testing in any of your work prior to this case? 12:45:28

20 A I think on a paper I'm working with 12:45:40

21 with a -- with a co-author, we use an equivalence 12:45:44

22 test in a study of campaign finance vouchers in 12:45:47

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

142

1	Seattle to decide whether our treatment group and	12:45:51
2	our control are different or the same.	12:45:54
3	Q And that's not yet been published?	12:45:55
4	A It's under review.	12:45:56
5	Q Is that your first use of equivalence	12:45:57
6	testing in your experience?	12:45:59
7	A In a professional research publication,	12:46:01
8	yes.	12:46:03
9	Q Have you seen equivalence testing used	12:46:04
10	in the political science world by others?	12:46:07
11	A Yes.	12:46:10
12	Q Who?	12:46:11
13	A I -- I can't name papers off the top of	12:46:15
14	my head. I know that the paper that developed	12:46:21
15	this idea for political science has been cited to	12:46:24
16	a few dozen times. I've seen its presentation at	12:46:28
17	academic conferences. I know that my co-author,	12:46:33
18	Abby Wood, has used it in her work. I've read it	12:46:37
19	in other -- usually in the context of comparing	12:46:41
20	treatment and control groups in experiments.	12:46:43
21	Q How does this setting that you're using	12:46:46
22	it in differ from setting up treatment and control	12:46:49

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

143

1	groups?	12:46:53
2	A It's not -- they're not the same thing.	12:46:56
3	The equivalence test just says we want to test if	12:46:59
4	the treatment and control group are separately.	12:47:02
5	How you set up the treatment and control group is	12:47:05
6	a different question of your research design, who	12:47:08
7	are you going to give something to or who aren't	12:47:11
8	you going to give something to.	12:47:12
9	Q Why do you believe that equivalence	12:47:14
10	testing can apply in this circumstance?	12:47:15
11	A I'll answer it two ways. I apply	12:47:21
12	equivalence testing only in response to Dr. Kidd's	12:47:26
13	critique that my assumption these groups are the	12:47:29
14	same. That's the primary reason to introduce	12:47:32
15	this.	12:47:35
16	The traditional hypothesis testing	12:47:35
17	posits that your baseline hypothesis is that your	12:47:40
18	treatment and control group are the same, and you	12:47:45
19	try to reject that. Equivalence approach has	12:47:46
20	recognized that may pose problems in certain	12:47:50
21	circumstances.	12:47:53
22	And if your goal is to provide evidence	12:47:53

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

144

1 to somebody that your baseline hypothesis isn't 12:47:55
2 that two groups are the same, then you can apply 12:47:57
3 the equivalence approach which says, okay, we'll 12:48:00
4 just do this inverse. Presume they're different, 12:48:03
5 and see if you can reject that. It's just an 12:48:05
6 inverse logic of the traditional way of doing 12:48:09
7 hypothesis testing. 12:48:13

8 Q I think it might be useful, and so I'm 12:48:18
9 going to offer this as Exhibit 8. It is simply 12:48:20
10 taking the chart from page 8 of the rebuttal 12:48:24
11 report and putting it on the same page with a -- 12:48:30
12 what we call Chart 2, which is the numbers that 12:48:38
13 are represented on Exhibit 5. I'd ask you to 12:48:41
14 compare that to Exhibit 5 and make sure it's 12:48:46
15 accurate. 12:48:48

16 A It appears accurate. 12:48:51

17 MR. BOYNTON: I would just mark that 12:48:53
18 as -- I'm sorry, I would just ask that be marked 12:48:55
19 as Exhibit 8. 12:48:58

20 (Spencer Exhibit 8 was marked for 12:48:59
21 identification and is attached to the transcript.) 12:49:00

22 BY MR. BOYNTON: 12:49:10

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

145

1	Q	Have you seen or are you aware of	12:49:14
2		equivalence testing being used in a Voting Rights	12:49:17
3		Act case?	12:49:21
4	A	No.	12:49:23
5	Q	Are you aware of any professional	12:49:23
6		literature that suggests the use of equivalence	12:49:26
7		testing in a Voting Rights Act case?	12:49:30
8	A	No. I also frankly would not use	12:49:34
9		equivalence testing in a voting rights case myself	12:49:39
10		but for responding to a criticism about regular	12:49:42
11		null hypotheses.	12:49:46
12		The equivalence test is even more	12:49:48
13		permissive. As you pointed out, you're rejecting	12:49:51
14		with only 10 percent overlap. In a regular	12:49:54
15		hypothesis, you only reject once the 90 percent is	12:49:57
16		over the threshold.	12:50:00
17		But that wasn't -- the critique that I	12:50:01
18		got from Dr. Kidd was you're rejecting a null	12:50:02
19		hypothesis based on the way we've always done this	12:50:06
20		in political science literature, which is a	12:50:09
21		hypothesis test, because your baseline assumption	12:50:12
22		is wrong.	12:50:15

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

146

1	And my response was, well, if my	12:50:16
2	baseline assumption is an equivalence test, I'm	12:50:16
3	going to have everything across the threshold,	12:50:19
4	because the threshold is smaller and the estimates	12:50:22
5	we get here are so ridiculous, ridiculously big.	12:50:25
6	Q Okay. I would like you to use the data	12:52:01
7	in Exhibit 8 to show the Allen -- to apply	12:52:10
8	equivalence testing for Asian support. And if you	12:52:36
9	need a piece of paper, I'll provide you that. I	12:52:39
10	think you have a pen.	12:52:41
11	MS. HARLESS: Objection to form.	12:52:43
12	BY MR. BOYNTON:	12:52:50
13	Q And if you just want to talk me through	12:52:50
14	it, that's fine too. I'm just asking you how	12:52:53
15	to -- you know, how to calculate.	12:52:57
16	A So the idea is to take this, you know,	12:52:58
17	estimate, 29.8, plus or minus something like 20,	12:53:02
18	which would give you 50 percent-ish. So	12:53:19
19	50 percent's greater than 44.1.	12:53:25
20	Q And so your range is from what to what?	12:53:38
21	A Let me figure this out.	12:53:48
22	MS. HARLESS: I have a calculator if	12:54:09

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

147

1	that would be helpful.	12:54:10
2	BY MR. BOYNTON:	12:54:12
3	Q And we're not trying to make it hard on	12:54:12
4	you. I probably have one, too, somewhere.	12:54:14
5	A Let me just multiply the standard error	12:54:16
6	by 2, instead of 1.96.	12:54:16
7	Is that okay?	12:54:16
8	Q Please use 2. That's --	12:54:18
9	A Okay. That's easier.	12:54:22
10	Q Okay. So --	12:54:48
11	A My range would go from 10 to 49.6.	12:54:48
12	Q And so 49.6 is above 44.1. Is it	12:54:51
13	10 percent above?	12:54:57
14	A It -- it is 10 percent above if you --	12:54:58
15	if you had 10, 39.6, it looks like this	12:55:01
16	(indicating). Wherever that 40 percent is, this	12:55:11
17	is -- there's 10 percent above 44.	12:55:15
18	Q So it's not a straight 10 percent?	12:55:17
19	A No. It's just at least 10 percent.	12:55:19
20	Q Okay. Now I'm going to give you one	12:55:21
21	more, and then I will be off of it.	12:55:23
22	A Okay.	12:55:26

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Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

148

1	Q	Asian support for Flores, you have a	12:55:26
2		point estimate of 33.9, I believe?	12:55:31
3	A	Yep.	12:55:34
4	Q	You have an SE of 7, which makes your	12:55:34
5		CI 14?	12:55:40
6	A	Yep.	12:55:42
7		So I would have a range of 19.9 to	12:56:04
8		47.9.	12:56:06
9	Q	And what's the threshold for	12:56:07
10		Mr. Flores?	12:56:09
11	A	48.7.	12:56:10
12	Q	So that would be a "No" for "Minority	12:56:11
13		preferred"?	12:56:14
14	A	That's correct, for Asian.	12:56:14
15	Q	For Asian.	12:56:16
16		But you've got the box checked "Yes" on	12:56:16
17		your Chart 1?	12:56:17
18	A	Let me check.	12:56:19
19		Yes, you're right. So something's	12:56:24
20		wrong either in this estimate that I produced	12:56:26
21		after -- or that I generated for you after or in	12:56:30
22		this check box.	12:56:32

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

149

1	Q	There's an error somewhere in that?	12:56:34
2	A	Yep.	12:56:36
3	Q	Fair enough.	12:56:37
4		Yeah, let's do a break. I don't think	12:56:53
5		I have a lot more, and it might be more efficient	12:56:54
6		to put our heads together and --	12:56:57
7	A	It saves us time to -- like, I don't do	12:56:59
8		statistics like this either --	12:57:00
9	Q	Okay.	12:57:02
10	A	-- so this is good.	12:57:02
11	Q	Fair enough.	12:57:03
12		Let's go ahead and mark that 9 just	12:57:04
13		because you were kind enough to do the work.	12:57:06
14		(Spencer Exhibit 9 was marked for	12:57:08
15		identification and is attached to the transcript.)	12:57:12
16		THE VIDEOGRAPHER: Please stand by.	12:57:13
17		We are going off the record. The time	12:57:14
18		is 12:56 p.m.	12:57:17
19		(A recess was taken.)	12:57:19
20		THE VIDEOGRAPHER: We are back on the	01:09:12
21		record. The time is 1:08 p.m.	01:09:13
22		BY MR. BOYNTON:	01:09:16

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Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

150

1	Q	Back on the record.	01:09:17
2		I believe we were working with	01:09:19
3		Exhibit 8 before we did the exercise with	01:09:21
4		Mr. Flores. Thank you for putting that back in	01:09:25
5		front of you.	01:09:28
6		So what we took from Mr. Flores'	01:09:29
7		confidence interval and estimate for Asian is that	01:09:36
8		there was an error somewhere, and we did not	01:09:39
9		believe that the -- the check for Asian range is	01:09:42
10		accurate for Mr. Flores, correct?	01:09:45
11	A	I'm -- I'm not -- I'm not sure that's	01:09:48
12		the right takeaway. Something is not right. It	01:09:50
13		might be the check, it might be the standard	01:09:53
14		error, but, yeah, something is incongruent between	01:09:55
15		those two estimates to the degree --	01:09:58
16	Q	So based on that incongruence, you	01:10:00
17		can't say today at least that under the	01:10:03
18		equivalence testing that Mr. Flores was minority	01:10:06
19		preferred by all three, black, Hispanic, and	01:10:10
20		Asians, correct?	01:10:14
21	A	Under this equivalence thing, yeah.	01:10:15
22	Q	Correct?	01:10:17

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

151

1	A	Correct. That's correct.	01:10:18
2	Q	So that "Y" in "Minority preferred"	01:10:19
3		becomes either an "N" or a question mark, correct?	01:10:22
4		MS. HARLESS: Objection to form.	01:10:26
5		BY MR. BOYNTON:	01:10:30
6	Q	What happens to your conclusion that	01:10:30
7		Mr. Flores is minority preferred where the Asian	01:10:34
8		range is in doubt based on your own data?	01:10:37
9	A	So if we go along with this equivalence	01:10:41
10		logic, then I wouldn't be able to reject the null	01:10:43
11		hypothesis about this Asian range itself and this	01:10:48
12		threshold of 48.7 percent.	01:10:52
13	Q	So you could not confirm that he was	01:10:54
14		minority preferred, correct?	01:10:56
15	A	Using this logic, you're correct.	01:11:00
16	Q	Okay. So if that is no longer a	01:11:02
17		"Yes" -- if the Flores "Minority preferred" box is	01:11:06
18		no longer a "Yes," how many minority-preferred	01:11:09
19		candidates do you have under the equivalence	01:11:11
20		testing approach?	01:11:13
21		MS. HARLESS: Objection to form.	01:11:15
22		BY MR. BOYNTON:	01:11:19

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

152

1	Q	How many Y's result from losing the "Y"	01:11:20
2		for Flores under "Minority preferred"?	01:11:22
3		(The reporter clarified the record.)	01:11:25
4	BY MR. BOYNTON:		01:11:26
5	Q	How many yeses do you have for	01:11:26
6		"Minority preferred" if you can't count on Flores	01:11:28
7		for a yes?	01:11:31
8	A	Under the minority candidates of this	01:11:32
9		table, six.	01:11:33
10	Q	Okay. Plus one for the white	01:11:34
11		candidates, correct?	01:11:38
12	A	On this table, yes.	01:11:41
13	Q	So a total of seven yeses for "Minority	01:11:42
14		preferred"?	01:11:45
15	A	On this table, yes.	01:11:45
16	Q	Okay. And how many won of the yeses	01:11:46
17		that were minority preferred?	01:11:52
18	A	In the column of "Won" on the table, it	01:11:56
19		looks like four.	01:12:04
20	Q	That's what I come up with.	01:12:05
21		Now -- so how does that match, in terms	01:12:07
22		of minority preferred, your original conclusions	01:12:12

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Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

153

1	of minority preferred? How many -- we have seven	01:12:15
2	that are yeses under the equivalence testing. How	01:12:18
3	many minority preferred did you have or minority	01:12:23
4	candidates of choice did you have under your	01:12:27
5	original analysis?	01:12:29
6	MS. HARLESS: Objection to form.	01:12:30
7	THE WITNESS: Can you restate again now	01:12:37
8	that I'm looking at the numbers? Sorry.	01:12:39
9	BY MR. BOYNTON:	01:12:40
10	Q And then go ahead and look at your	01:12:41
11	original report if that's easier. I don't mind	01:12:42
12	either.	01:12:45
13	How many minority candidates of choice	01:12:47
14	did you arrive at under your original report?	01:12:49
15	A Ten.	01:12:52
16	Q Ten.	01:12:53
17	And under the rebuttal report, you end	01:12:54
18	up with seven?	01:12:58
19	A Well, so in Table 1 of the rebuttal	01:13:00
20	report, there's seven checkmarks in the "Minority	01:13:02
21	preferred" table, but that's not the analysis I	01:13:05
22	would use to identify a minority candidate of	01:13:08

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

154

1	choice. It's just what I did in response to Kidd.	01:13:10
2	Q Understood.	01:13:14
3	A My -- my final of seven is from the	01:13:15
4	initial analysis.	01:13:19
5	Q And you published an article for the	01:13:20
6	School of Law, University of California, Davis,	01:13:22
7	"Administering Section 2 of the VRA" -- I presume	01:13:24
8	Voting Rights -- Voting Rights Act -- "After	01:13:30
9	Shelby County," correct?	01:13:32
10	A That's correct.	01:13:34
11	Q You were a co-author with Christopher	01:13:35
12	Elmendorf?	01:13:36
13	A Yeah. He's a professor at UC Davis,	01:13:37
14	which is why there's maybe a title page from him.	01:13:40
15	We didn't write it for Davis. That's where he's	01:13:42
16	from --	01:13:44
17	Q Okay.	01:13:44
18	A -- but incidental.	01:13:44
19	Q Fair enough.	01:13:45
20	But you are a co-author of that?	01:13:46
21	A That's correct.	01:13:48
22	Q Do you stand by everything that was	01:13:49

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

155

1	written in that report?	01:13:50
2	A Yes, I do.	01:13:51
3	Q Okay. Do you recall referring to	01:13:52
4	ecological inference as, quote, often unreliable?	01:13:59
5	MS. HARLESS: Can you show him a copy?	01:14:02
6	MR. BOYNTON: I would be happy to.	01:14:04
7	THE WITNESS: Yes, I -- I recall	01:14:09
8	writing that. I should clarify that is a	01:14:10
9	statistical problem, not the method that's being	01:14:15
10	used in VRA cases. Ecological inference is a --	01:14:19
11	is -- is a -- it's a fallacy of trying to estimate	01:14:22
12	individual characteristics from group data that	01:14:26
13	exists in a lot of different environments, and	01:14:29
14	that's what that's referring to, is that problem.	01:14:32
15	BY MR. BOYNTON:	01:14:35
16	Q Okay. Did you also make the statement	01:14:35
17	in that Law Review article that the other rising	01:14:44
18	threat to Section 2 is that the statistical	01:14:49
19	techniques used to establish minority political	01:14:53
20	cohesion and white bloc voting tend to break down	01:14:54
21	if there are more than two racial groups?	01:14:58
22	A And/or significant residential	01:15:01

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

156

1	integration, yes.	01:15:02
2	Q Did you have -- were you looking at two	01:15:05
3	or more racial groups in this instance?	01:15:07
4	A So what that refers to --	01:15:11
5	Q I'm sorry, I need to correct the	01:15:13
6	question.	01:15:15
7	A Yeah.	01:15:16
8	Q Were you looking -- in the Virginia	01:15:16
9	Beach case, were you considering more than two	01:15:17
10	racial groups?	01:15:19
11	A Yes.	01:15:21
12	Q Okay. And did you observe significant	01:15:22
13	residential integration in Virginia Beach in your	01:15:26
14	analysis?	01:15:29
15	MS. HARLESS: Objection to form.	01:15:29
16	THE WITNESS: I don't know I can speak	01:15:31
17	credibly about integration, but there was	01:15:35
18	definitely a dispersion of racial minority groups	01:15:36
19	by precinct.	01:15:41
20	BY MR. BOYNTON:	01:15:42
21	Q And both of -- the presence of one or	01:15:43
22	both of those conditions caused the statistical	01:15:46

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

157

1	techniques used to establish minority political	01:15:51
2	cohesion and white bloc voting to break down,	01:15:55
3	correct?	01:15:57
4	A If both are present, then some of the	01:15:58
5	aspects of the interpretation of ecological	01:16:00
6	regression, homogeneous precincts, and King's EI	01:16:05
7	become challenging in some ways.	01:16:09
8	Q In light of everything that you've	01:16:42
9	testified to today, can you state to a reasonable	01:16:44
10	degree of scientific certainty that Asians	01:16:46
11	alone -- Asian voters alone are cohesive in	01:16:48
12	Virginia Beach? I'm sorry, cohesive with Hispanic	01:16:52
13	and black voters?	01:16:57
14	MS. HARLESS: Objection to form.	01:16:59
15	BY MR. BOYNTON:	01:16:59
16	Q Okay. Okay. In light of everything	01:17:00
17	you've testified to today, can you state to a	01:17:03
18	reasonable degree of scientific certainty that	01:17:06
19	Asian voters alone are cohesive with Hispanics	01:17:08
20	alone in Virginia Beach?	01:17:12
21	MS. HARLESS: Object as to form.	01:17:24
22	THE WITNESS: My strong opinion is that	01:17:31

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Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

158

1	these groups function as a coalition and that	01:17:32
2	they're -- that Asian voters are voting cohesively	01:17:36
3	and with black voters as evidenced by the report	01:17:42
4	that I had submitted, which I interpret to be	01:17:48
5	cohesiveness among those groups.	01:17:52
6	BY MR. BOYNTON:	01:17:54
7	Q And I'll rephrase.	01:17:54
8	Can you state to a reasonable degree of	01:17:55
9	scientific certainty that Asians -- Asian voters	01:17:56
10	alone in Virginia Beach are cohesive with Hispanic	01:17:59
11	voters alone in Virginia Beach?	01:18:02
12	A I don't have point estimates for those	01:18:05
13	groups, but I do have analysis that shows that	01:18:07
14	without cohesive voting, candidates would not be	01:18:11
15	winning these votes -- these elections. So my	01:18:14
16	interpretation of that is that there's cohesive	01:18:16
17	voting among these groups and between these	01:18:20
18	groups.	01:18:22
19	Q Are you stating to a reasonable degree	01:18:23
20	of scientific certainty that Asians alone -- Asian	01:18:24
21	voters alone are cohesive with Hispanic voters	01:18:28
22	alone in Virginia Beach?	01:18:31

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

159

1	MS. HARLESS: Objection. Asked and	01:18:32
2	answered.	01:18:32
3	THE WITNESS: My opinion -- my opinion	01:18:33
4	is that, so -- and I think my opinion is based on	01:18:35
5	scientific certainty of what would be the	01:18:39
6	threshold for deciding that.	01:18:41
7	Q Okay. Thank you. We're done.	01:18:42
8	A Yeah.	01:18:47
9	MR. HEBERT: Thank you.	01:18:48
10	THE WITNESS: Thank you.	01:18:49
11	THE VIDEOGRAPHER: Please stand by.	01:18:50
12	This marks the end of the videotaped	01:18:52
13	deposition of Douglas Spencer. We are off the	01:18:55
14	record at 1:18 p.m.	01:18:58
15	(Off the video record.)	
16	THE REPORTER: Do you need regular	
17	delivery or expedite?	
18	MR. BOYNTON: We need to expedite it.	
19	THE REPORTER: Okay. How quickly would	
20	you like it?	
21	MR. BOYNTON: How quickly can you do	
22	it?	

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

160

1 THE REPORTER: Do you want it tomorrow?

2 MR. BOYNTON: Friday.

3 THE REPORTER: Friday is good.

4 Annabelle, they're getting it Friday.

5 Do you need an expedite also?

6 MS. HARLESS: No.

7 THE REPORTER: Do you need a copy of
8 the transcript?

9 MS. HARLESS: Yes.

10 (Off the record at 1:19 p.m.)

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Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

161

1 CERTIFICATE OF SHORTHAND REPORTER - NOTARY PUBLIC

2 I, Marney Alena Mederos, the officer
3 before whom the foregoing deposition was taken, do
4 hereby certify that the foregoing transcript is a
5 true and correct record of the testimony given;
6 that said testimony was taken by me
7 stenographically and thereafter reduced to
8 typewriting under my direction; that reading and
9 signing was not requested; and that I am neither
10 counsel for, related to, nor employed by any of
11 the parties to this case and have no interest,
12 financial or otherwise, in its outcome.

13 IN WITNESS WHEREOF, I have hereunto set
14 my hand and affixed my notarial seal this 3rd day
15 of October 2019.

16 My commission expires January 14, 2023.

17 
18
19
20

21 NOTARY PUBLIC IN AND FOR
22 THE DISTRICT OF COLUMBIA

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

162

A			
aaron	151:11, 156:17	actual	87:15, 92:13,
5:18, 5:22,	above	27:2, 82:14,	94:18
137:6	140:19, 141:6,	121:6, 140:11	african-americans
abbott	141:10, 147:12,	actually	118:18
86:14, 129:6	147:13, 147:14,	33:3, 59:8,	after
abby	147:17	59:14, 74:3,	28:11, 64:4,
142:18	academic	76:2, 81:18,	73:5, 73:12,
ability	19:1, 32:1,	96:15, 96:17,	73:15, 73:17,
16:14, 32:22,	32:20, 142:17	116:14, 125:19,	92:18, 97:16,
36:3	accepted	135:1, 139:6,	135:16, 148:21,
able	28:13	139:21	154:8
42:12, 56:21,	according	added	again
57:1, 57:3,	94:21	98:19	9:21, 31:1,
68:12, 68:17,	account	adding	94:8, 140:7,
68:20, 69:2,	80:21, 88:7,	58:7, 61:7,	153:7
69:21, 70:18,	122:12, 122:17	111:21	against
71:7, 119:7,	accounted	addition	37:11, 56:11,
151:10	98:13	24:3, 35:2,	57:5, 107:20
about	accounts	66:3, 131:6	age
16:17, 20:9,	56:14	address	106:12, 119:15
21:4, 21:6,	accuracy	10:1, 10:5,	ago
21:19, 23:7,	48:20	10:6, 60:8	40:8
25:7, 25:21,	accurate	addressing	agree
26:5, 26:11,	10:20, 12:17,	60:13, 61:5,	73:21, 85:13,
27:7, 27:10,	13:15, 45:5,	61:6	85:17, 96:7,
29:16, 29:17,	45:6, 71:7,	adjunct	97:5, 97:8,
29:18, 29:21,	74:1, 144:15,	62:8	105:12, 105:21
31:8, 34:22,	144:16, 150:10	adjustment	agreement
35:5, 35:9,	acknowledge	81:7	40:15
35:21, 37:9,	115:18	administered	ahead
44:8, 45:15,	acknowledged	74:11	12:22, 13:20,
46:1, 46:2,	80:10	administering	50:10, 83:14,
47:13, 53:14,	across	154:7	121:15, 134:22,
61:20, 66:2,	92:3, 100:5,	administration	149:12, 153:10
68:9, 71:2,	114:7, 116:10,	29:22	al
83:8, 83:11,	129:15, 137:14,	advance	1:4, 1:8, 7:7,
83:13, 83:19,	138:2, 146:3	25:3	7:8
88:4, 89:22,	acs	advantages	alena
95:22, 102:9,	74:14, 74:15,	56:16	1:22, 2:11,
103:11, 104:1,	106:12, 106:19	affiliated	161:2
104:13, 106:17,	act	62:6	alerted
108:12, 108:18,	38:11, 39:2,	affirm	98:20
109:7, 109:10,	40:19, 40:22,	63:2	algorithm
109:14, 117:18,	41:2, 41:7,	affirmed	47:20, 48:20,
119:3, 121:13,	60:11, 61:17,	8:15, 63:7	48:21, 126:6,
124:22, 145:10,	62:19, 145:3,	affixed	126:8
	145:7, 154:8	161:14	algorithms
	activities	african-american	126:7
	37:1	82:17, 85:14,	

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

163

<p>align 91:10</p> <p>all 8:22, 11:10, 11:11, 12:5, 25:4, 29:15, 36:16, 44:2, 51:15, 53:11, 55:5, 56:1, 56:14, 64:21, 66:15, 67:6, 68:16, 69:14, 69:16, 71:22, 72:5, 72:17, 79:4, 79:11, 80:2, 80:12, 85:3, 85:6, 87:14, 87:15, 88:1, 89:7, 89:14, 91:9, 91:12, 92:9, 94:9, 98:19, 100:5, 100:10, 100:11, 100:22, 101:7, 103:2, 106:14, 112:6, 114:7, 114:10, 114:16, 114:20, 116:10, 117:12, 125:21, 129:15, 129:16, 150:19</p> <p>all-minority 51:1, 51:3, 51:21, 52:6, 68:18, 78:2, 78:21, 97:7, 102:17, 103:5, 103:13, 106:7, 106:9, 107:9, 108:11, 114:11</p> <p>allen 101:21, 113:21, 115:4, 146:7</p> <p>allow 12:3, 69:7</p> <p>allowed 138:7</p> <p>allows 126:9</p>	<p>almost 135:18</p> <p>alone 106:5, 157:11, 157:19, 157:20, 158:10, 158:11, 158:20, 158:21, 158:22</p> <p>along 28:8, 151:9</p> <p>already 70:11, 141:15, 141:16</p> <p>also 4:12, 8:7, 10:18, 30:1, 30:6, 56:3, 58:19, 58:20, 62:16, 78:22, 80:3, 84:1, 85:11, 87:8, 117:18, 126:13, 129:8, 131:7, 145:8, 155:16, 160:5</p> <p>although 116:9</p> <p>always 145:19</p> <p>american 74:10, 120:3</p> <p>among 77:6, 86:10, 86:12, 87:11, 105:16, 114:10, 119:6, 158:5, 158:17</p> <p>amount 138:5</p> <p>amounts 136:22</p> <p>amplify 14:3, 14:7</p> <p>analyses 91:10</p> <p>analysis 6:4, 16:17, 18:3, 23:8,</p>	<p>46:21, 49:10, 52:3, 54:7, 54:10, 54:12, 54:19, 54:20, 55:7, 55:19, 56:19, 57:3, 57:5, 67:21, 69:15, 82:19, 91:18, 97:11, 103:13, 119:20, 130:20, 132:17, 153:5, 153:21, 154:4, 156:14, 158:13</p> <p>analyzing 35:5</p> <p>andrew 114:11</p> <p>annabelle 3:3, 8:2, 160:4</p> <p>anne 75:11, 76:1, 90:21, 94:6, 97:2, 101:5, 113:21</p> <p>another 38:22, 40:8, 43:14, 86:21, 87:4, 89:11, 122:19, 124:17, 131:11</p> <p>answer 11:18, 12:3, 59:21, 70:5, 74:8, 97:20, 107:14, 143:11</p> <p>answered 159:2</p> <p>anthony 119:18</p> <p>any 11:15, 12:4, 14:14, 16:13, 18:1, 19:17, 21:1, 23:1, 24:10, 24:13, 26:8, 27:12, 52:11, 54:14,</p>	<p>60:5, 60:6, 62:22, 63:5, 65:13, 66:1, 66:16, 67:4, 74:13, 74:19, 81:7, 81:8, 82:19, 82:20, 109:22, 123:12, 123:16, 141:19, 145:5, 161:10</p> <p>anybody 65:17</p> <p>anymore 125:2</p> <p>anything 14:8, 16:19, 19:11, 21:22, 26:10, 36:9, 42:14, 71:2, 83:8, 106:17, 108:12, 108:18</p> <p>anyway 110:7</p> <p>anywhere 126:19</p> <p>apart 32:20, 53:8</p> <p>apartment 10:3</p> <p>appeals 63:6</p> <p>appear 10:20, 12:17, 13:15, 127:17</p> <p>appears 11:19, 94:4, 104:6, 108:16, 144:16</p> <p>appendix 66:10, 66:13, 66:14, 81:6, 85:11, 94:9</p> <p>application 137:10</p> <p>applies 69:14, 69:16</p> <p>apply 143:10, 143:11,</p>
--	--	---	---

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

164

144:2, 146:7 applying 5:15, 5:19 appointment 28:21 approach 98:15, 124:5, 124:9, 134:1, 143:19, 144:3, 151:20 approaches 117:15 approved 62:18 approximately 31:22, 132:14, 132:15 area 14:21, 19:12, 25:10, 35:18 aren't 89:19, 143:7 argument 88:4, 117:16 around 34:8, 110:22 arrive 153:14 arrived 22:12, 27:21 article 27:20, 62:2, 154:5, 155:17 articles 24:21 arts 19:8, 29:2 asian 20:14, 21:16, 68:22, 69:13, 69:20, 70:11, 70:16, 71:8, 71:11, 106:13, 107:10, 108:2, 108:12, 108:14, 108:18, 117:4, 117:7, 117:15, 130:4, 133:5,	133:8, 133:13, 146:8, 148:1, 148:14, 148:15, 150:7, 150:9, 151:7, 151:11, 157:11, 157:19, 158:2, 158:9, 158:20 asians 118:16, 126:17, 150:20, 157:10, 158:9, 158:20 asked 15:1, 16:3, 16:9, 18:1, 45:16, 127:6, 138:22, 159:1 asking 14:12, 52:14, 66:19, 66:20, 84:4, 95:10, 109:13, 146:14 aspects 24:22, 157:5 assertion 119:18, 119:20 assessment 108:6 assigned 30:5, 30:10 assignment 15:20, 31:12 assimilation 22:6 assistance 65:13 assistant 65:16 associate 28:15 assume 124:20, 140:7, 140:8 assuming 126:20, 131:18 assumption 143:13, 145:21, 146:2	asterisks 96:12 at-large 80:9, 81:1, 81:4, 81:11, 82:1, 86:22, 87:5, 87:20, 90:2, 92:16, 92:21, 94:5, 98:8, 99:2, 99:3, 100:14, 100:18, 101:17, 113:17, 113:19, 113:20, 113:21, 121:12, 121:22 attached 5:6, 7:3, 13:4, 13:22, 14:4, 128:2, 136:4, 140:5, 144:21, 149:15 attempt 119:9 attempting 133:22 attending 23:19 attention 75:6, 92:4, 92:15, 94:3, 110:20, 123:19 attorney 11:7 attorney's 4:6 august 32:4, 111:1 authored 9:5 available 69:7, 69:17, 72:4, 88:7, 122:3 avenue 10:2 average 83:19 aware 62:22, 63:5,	73:4, 73:11, 92:20, 145:1, 145:5 away 27:20, 55:22, 139:17 <hr/> B <hr/> bachelor 19:8 back 64:15, 77:12, 83:22, 110:17, 113:12, 135:6, 149:20, 150:1, 150:4 background 12:18, 22:10, 35:13 backwards 115:1 baked 122:19, 127:5 baker 51:16, 51:20 ballot 27:18 ballots 122:3, 122:6, 122:11 bar 134:2, 136:6, 137:12, 137:15, 139:14 barbara 91:1 based 47:19, 104:12, 117:3, 138:11, 145:19, 150:16, 151:8, 159:4 baseline 98:12, 125:8, 143:17, 144:1, 145:21, 146:2 basically 29:16, 80:18 bay 35:17
---	--	--	--

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

165

<p>bayside 94:5, 94:7, 94:12, 94:18, 94:19, 95:12, 96:22, 98:5</p> <p>beach 1:7, 4:6, 4:8, 7:8, 15:2, 50:6, 50:16, 50:20, 51:5, 57:2, 60:4, 60:14, 60:15, 61:2, 61:16, 66:7, 69:4, 69:21, 70:17, 70:19, 71:8, 72:11, 73:6, 73:12, 75:3, 93:6, 93:10, 111:9, 120:12, 120:13, 120:16, 120:19, 121:2, 121:4, 121:9, 129:19, 156:9, 156:13, 157:12, 157:20, 158:10, 158:11, 158:22</p> <p>because 40:11, 59:14, 69:6, 72:3, 74:9, 80:15, 80:16, 85:10, 87:6, 88:6, 91:19, 94:14, 96:3, 97:13, 98:12, 99:5, 100:12, 103:17, 108:3, 110:6, 117:13, 121:9, 121:17, 122:2, 122:17, 126:12, 129:6, 130:22, 145:21, 146:4, 149:13</p> <p>become 45:14, 60:9, 157:7</p> <p>becomes 45:17, 151:3</p>	<p>been 9:3, 11:2, 15:1, 27:9, 28:1, 39:21, 40:1, 40:4, 40:11, 40:15, 40:22, 41:3, 41:8, 62:18, 67:16, 87:15, 88:10, 89:10, 99:9, 105:3, 110:5, 142:3, 142:15</p> <p>before 2:11, 10:11, 11:3, 27:22, 55:10, 63:20, 73:7, 73:19, 74:2, 92:17, 121:8, 150:3, 161:3</p> <p>began 72:2, 78:19</p> <p>begin 127:3</p> <p>begins 7:5, 110:15</p> <p>behalf 3:2, 4:2, 37:6, 40:9</p> <p>behavior 55:17, 109:15</p> <p>being 8:15, 36:12, 36:14, 45:16, 70:18, 71:7, 72:17, 94:13, 103:12, 145:2, 155:9</p> <p>believe 50:17, 54:13, 76:5, 82:15, 101:21, 110:21, 112:9, 129:1, 143:9, 148:2, 150:2, 150:9</p> <p>bell 44:19, 131:13,</p>	<p>138:14, 138:19, 139:18, 139:20, 140:16</p> <p>bellitto 99:1, 99:8, 99:11, 99:16, 99:18, 100:2, 100:21, 116:6, 116:12, 116:15, 116:16</p> <p>below 139:14, 141:6</p> <p>berkeley 22:12, 22:20, 23:13, 34:5, 55:1, 62:7</p> <p>best 67:17</p> <p>best-fit 56:13</p> <p>better 18:17, 21:21, 49:4, 54:1, 71:19, 129:3, 138:2</p> <p>between 42:8, 43:8, 48:15, 54:15, 72:11, 94:17, 95:2, 96:14, 99:20, 104:21, 107:10, 111:7, 116:12, 118:19, 124:9, 126:20, 133:9, 133:11, 150:14, 158:17</p> <p>beyond 36:2, 36:9, 81:14</p> <p>big 126:22, 146:5</p> <p>bigger 53:12, 136:6, 137:17</p> <p>bit 33:9</p> <p>black 48:1, 51:17,</p>	<p>55:10, 68:13, 79:4, 79:9, 79:17, 88:1, 92:8, 95:3, 95:16, 97:7, 99:1, 99:3, 99:4, 99:7, 99:10, 99:12, 100:3, 102:10, 105:3, 106:5, 106:14, 106:20, 107:10, 108:9, 108:15, 111:8, 111:16, 112:3, 112:16, 112:22, 130:4, 150:19, 157:13, 158:3</p> <p>black-only 51:4</p> <p>black-voter 79:1</p> <p>blacks 89:7, 100:22, 101:7</p> <p>bless 112:7</p> <p>bloc 17:16, 86:7, 90:14, 93:15, 105:2, 105:17, 105:20, 106:14, 114:19, 155:20, 157:2</p> <p>blue 134:2, 134:4</p> <p>board 92:3, 122:5</p> <p>boards 21:21</p> <p>boils 124:12</p> <p>book 30:7</p> <p>books 30:5, 30:10</p> <p>both 29:2, 33:5, 33:17, 44:12,</p>
---	--	---	---

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

166

62:6, 79:4, 82:7, 87:22, 89:7, 92:8, 101:7, 102:16, 103:15, 105:17, 116:16, 136:6, 139:1, 156:21, 156:22, 157:4 box 21:11, 48:1, 55:10, 78:10, 78:13, 78:17, 96:9, 138:6, 148:16, 148:22, 151:17 boxes 102:16 boynton 4:3, 5:3, 7:18, 8:19, 8:22, 12:22, 13:5, 13:19, 14:1, 16:1, 16:2, 18:8, 18:9, 33:12, 38:18, 39:9, 39:10, 41:6, 41:12, 43:21, 44:1, 48:3, 50:2, 50:5, 50:7, 50:10, 50:13, 50:14, 60:17, 64:6, 64:9, 64:17, 66:12, 66:19, 66:22, 70:2, 71:5, 74:7, 83:5, 84:8, 88:9, 88:18, 89:21, 90:1, 95:1, 95:18, 97:19, 103:21, 107:13, 108:10, 110:5, 110:18, 127:14, 127:21, 128:3, 132:8, 134:14, 136:5, 140:6, 140:22, 141:14,	141:17, 144:17, 144:22, 146:12, 147:2, 149:22, 151:5, 151:22, 152:4, 153:9, 155:6, 155:15, 156:20, 157:15, 158:6, 159:18, 159:21, 160:2 brady 33:5, 33:16, 34:4 break 64:7, 110:6, 117:14, 149:4, 155:20, 157:2 breakdown 129:17 briskly 28:8 brought 55:21 browser 13:12 build 119:19 building 16:20, 80:6 bullet 56:8 bullock 101:6, 113:20, 115:6 bunch 25:11, 25:18 burton 97:7 burton's 97:9 <hr/> C <hr/> cabiness 90:11, 99:8, 100:2, 113:18, 115:14, 116:12, 128:17 calculate 146:15	calculation 135:2, 135:3 calculations 6:5 calculator 146:22 california 22:20, 25:19, 55:1, 154:6 call 20:17, 35:9, 47:7, 47:22, 61:12, 136:1, 144:12 called 29:13, 29:20, 46:20, 47:3, 56:4, 123:21, 124:5, 126:8 calling 85:2 calls 75:9 came 13:13, 119:21 campaign 2:4, 3:4, 3:11, 37:7, 40:8, 79:14, 141:22 campaigners 27:2 can't 11:12, 51:6, 62:2, 63:8, 63:16, 104:20, 107:8, 121:8, 121:9, 125:1, 127:1, 142:13, 150:17, 152:6 candidate 5:18, 5:22, 56:11, 72:6, 72:10, 76:19, 76:20, 77:3, 77:5, 77:6, 77:9, 77:22, 78:8, 79:1, 79:9, 79:11,	79:17, 80:12, 80:22, 81:10, 83:16, 85:7, 85:18, 86:1, 86:14, 87:8, 88:8, 88:11, 89:1, 89:2, 89:5, 89:14, 90:4, 90:8, 90:19, 90:22, 91:20, 91:22, 92:3, 92:8, 93:9, 95:9, 95:11, 96:5, 96:8, 96:18, 96:20, 99:2, 99:3, 99:5, 99:10, 99:12, 100:10, 100:13, 100:22, 101:2, 101:6, 101:19, 102:17, 103:14, 104:14, 104:18, 105:3, 105:5, 105:12, 106:22, 107:5, 107:7, 109:4, 109:5, 109:17, 109:18, 111:8, 111:15, 111:16, 112:3, 112:16, 113:1, 114:15, 116:1, 116:4, 116:6, 116:21, 117:21, 118:1, 118:4, 118:12, 118:14, 119:5, 122:10, 122:18, 126:18, 128:7, 128:14, 129:3, 139:7, 153:22 candidate's 48:14, 93:21, 98:18, 129:13 candidates 17:18, 46:18, 68:14, 72:15, 76:10, 76:11,
---	---	---	--

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

167

76:14, 76:15, 76:17, 80:15, 82:4, 82:8, 83:1, 83:20, 84:3, 84:14, 87:16, 88:14, 88:19, 91:8, 95:6, 99:6, 99:7, 102:11, 105:14, 112:10, 113:15, 114:2, 114:20, 114:22, 115:19, 119:4, 123:13, 129:1, 151:19, 152:8, 152:11, 153:4, 153:13, 158:14 cannot 105:6, 108:20 capps 52:8 capture 53:17, 81:17 career 18:17, 19:22, 22:10 case 1:6, 7:10, 9:2, 9:4, 18:2, 18:11, 30:6, 36:4, 36:13, 37:8, 37:9, 37:10, 37:13, 37:18, 38:3, 38:7, 38:11, 38:15, 38:20, 39:12, 39:14, 40:1, 40:6, 40:9, 40:16, 40:18, 40:19, 40:21, 41:3, 41:8, 41:17, 52:13, 54:11, 54:12, 54:19, 56:3, 66:17, 74:9, 75:2, 75:17, 102:1, 128:11, 129:10,	131:22, 141:12, 141:19, 145:3, 145:7, 145:9, 156:9, 161:11 cases 35:19, 36:8, 40:4, 56:15, 61:17, 62:17, 62:19, 63:1, 63:10, 112:3, 112:5, 112:22, 113:13, 155:10 cast 81:13, 81:17, 81:18, 81:19, 98:20, 122:4, 122:6, 122:8, 122:11, 122:15 causal 34:15 cause 25:21 caused 96:1, 156:22 census 73:12, 73:13, 73:14, 73:17, 73:19, 73:22, 74:13, 74:16, 74:17, 74:20, 75:5, 119:22, 120:2, 120:8, 120:20 center 2:4, 3:4, 3:11, 34:18, 34:21 centerville 75:13, 76:2, 76:8, 76:9, 78:7, 80:3, 82:2, 113:17, 128:22 central 25:2, 25:4 certain 16:14, 16:15, 80:22, 143:20 certainly 51:10	certainty 41:22, 42:1, 42:2, 42:9, 43:6, 157:10, 157:18, 158:9, 158:20, 159:5 certificate 161:1 certified 2:13 certify 161:4 cetera 78:6 chair 34:4 challenge 37:10 challenged 40:11 challenging 157:7 chance 138:2 change 35:8, 67:9, 87:20, 88:3, 98:22 changed 30:20 changes 123:11, 123:12, 123:16 characteristic 69:11, 69:12 characteristics 27:8, 155:12 chart 5:15, 5:19, 6:2, 75:9, 77:15, 77:20, 79:21, 79:22, 112:12, 113:8, 127:16, 127:18, 144:10, 144:12, 148:17 check 56:17, 57:4,	76:5, 78:10, 79:4, 79:6, 79:16, 80:2, 89:11, 138:6, 148:18, 148:22, 150:9, 150:13 check-in 27:15 checked 40:7, 78:13, 78:17, 96:9, 102:15, 103:15, 148:16 checkmarks 153:20 checks 127:15 chicago 3:7, 9:18, 9:20, 10:3, 32:7, 39:2 choice 46:19, 76:21, 77:3, 77:5, 77:9, 78:8, 79:17, 82:5, 82:8, 83:1, 84:14, 85:18, 86:2, 88:8, 88:11, 88:15, 88:20, 89:1, 89:2, 89:5, 89:15, 90:5, 90:8, 90:22, 91:8, 91:22, 92:8, 93:10, 95:9, 95:11, 96:5, 96:8, 96:18, 96:21, 99:2, 99:3, 99:5, 99:7, 99:10, 99:12, 100:10, 100:14, 100:22, 101:2, 101:6, 101:19, 102:17, 103:14, 104:14, 104:19, 105:5, 105:12,
--	--	---	---

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

168

105:14, 107:7, 112:4, 112:16, 113:1, 114:2, 114:15, 115:20, 118:13, 118:14, 123:14, 153:4, 153:13, 154:1 choose 54:18 chosen 80:16, 99:6 chris 7:18, 8:22 christopher 4:3, 154:11 ci 133:21, 148:5 circling 104:6 circuit 63:5 circuits 63:6 circumstance 143:10 circumstances 82:21, 143:21 cite 62:2 cited 65:5, 142:15 citizen 106:11, 119:15 city 1:7, 4:6, 7:8, 72:11, 86:18, 92:16, 92:18, 92:20, 93:10, 94:19, 111:9, 111:16 civil 35:17, 39:3 clarification 119:11, 119:14 clarified 43:20, 66:11, 152:3 clarify 39:9, 74:21,	119:21, 155:8 class 23:22, 29:10, 29:13, 30:9, 30:21, 35:15, 35:20, 36:2, 36:5 classes 15:4, 24:5 clean 127:8, 127:10, 127:12, 139:22 cleanup 64:18 clear 39:7, 58:15, 78:20, 88:22, 99:9 clearly 89:4, 99:4, 105:1 clerk 36:6 clicking 13:11 close 53:10, 53:13 closeness 99:13 co-author 141:21, 142:17, 154:11, 154:20 co-professor 30:8 co-teachers 30:9 coalition 75:12, 77:16, 78:1, 78:17, 79:5, 79:10, 80:4, 106:22, 107:4, 107:16, 107:19, 108:6, 108:8, 109:12, 117:21, 118:11, 118:20, 119:4, 158:1 coalitional 117:19	cohesion 5:17, 5:21, 77:17, 77:21, 78:10, 79:4, 79:8, 79:19, 106:17, 109:2, 109:3, 109:9, 109:14, 116:20, 118:22, 119:2, 155:20, 157:2 cohesive 17:9, 107:2, 116:21, 117:5, 117:9, 157:11, 157:12, 157:19, 158:10, 158:14, 158:16, 158:21 cohesively 158:2 cohesiveness 158:5 colleagues 9:1 collecting 65:18 college 29:1 colloquially 47:22 colorado 37:6, 37:11, 37:12 columbia 2:14, 19:7, 19:12, 161:22 column 77:15, 77:16, 77:21, 79:8, 98:17, 122:5, 122:7, 126:9, 128:5, 152:18 columns 103:2, 103:3, 130:2, 130:3 combined 105:21, 107:1 combines 68:2	come 74:10, 75:4, 129:3, 138:10, 152:20 comes 15:3, 106:11, 129:13 coming 136:9 comments 125:22 commission 161:16 committee 33:4, 33:16, 35:17, 36:7, 39:2 communicate 67:4 communications 67:2 community 74:10, 87:11, 120:3 compare 45:20, 55:12, 60:18, 67:19, 144:14 compared 105:1, 121:7, 130:16 compares 48:12, 56:10 comparing 42:7, 92:1, 96:22, 124:13, 142:19 compelling 129:8 compensated 36:12, 36:15 complete 10:15, 10:21, 14:16, 14:17 completely 124:13 completing 12:1, 12:2
---	--	---	---

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

169

complications 124:15 complies 41:15, 135:4 concentration 19:17, 23:1, 24:10, 24:13, 24:15, 69:20, 70:16 concept 44:16, 134:18 conceptualize 55:9 conclude 25:8, 81:22, 90:16, 104:13 concluded 25:9, 27:14, 32:11 conclusion 87:21, 151:6 conclusions 27:12, 41:16, 41:17, 152:22 conditions 156:22 conducted 21:10, 21:20, 123:10 conferences 142:17 confidence 42:13, 43:17, 44:3, 44:4, 44:13, 45:4, 45:8, 45:13, 45:17, 45:19, 45:20, 45:22, 46:2, 48:18, 49:8, 52:18, 52:22, 53:3, 53:7, 53:12, 57:6, 126:14, 126:21, 131:14, 131:15, 132:13, 134:12, 135:13, 135:17, 135:20, 135:22, 137:11,	137:17, 139:5, 150:7 confidence-inter- val 135:1 confident 125:1, 125:20 confirm 76:6, 91:14, 96:10, 96:15, 151:13 confirmation 61:8, 61:9 confirmed 91:12 confirms 57:6 confusion 58:8 congressional 30:7, 93:3 congruent 123:9 connecticut 10:7, 10:9, 28:14, 28:20, 30:18 conservative 128:12, 128:21 consider 15:9, 15:12, 15:15, 41:21, 65:3, 84:5, 87:12, 87:13 consideration 96:2, 132:21 considered 65:8, 88:8, 117:21 considering 156:9 constitutes 43:5 constitutional 29:9, 32:17 consulting 39:1, 39:4, 39:6	contact 19:1 content 66:20 context 42:2, 42:5, 42:6, 45:15, 118:10, 124:11, 142:19 continue 58:13 contribute 26:7, 27:16 contributed 65:11 contributing 26:16 contribution 67:18 control 142:2, 142:20, 142:22, 143:4, 143:5, 143:18 conversation 47:8 conversationally 46:11 conversations 66:1 copies 10:15, 10:21 copy 12:12, 12:13, 13:11, 13:15, 127:9, 155:5, 160:7 core 23:6 corner 51:16, 51:20 correction 134:22 correctly 75:19, 123:1 correlated 27:18 correlating 26:17	could 56:7, 80:17, 81:1, 81:10, 88:8, 88:10, 89:2, 126:19, 151:13 council 72:11, 86:18, 92:16, 92:18, 92:20, 93:10, 111:9, 111:16, 116:1, 116:4, 116:6 counsel 7:16, 8:18, 66:3, 66:4, 161:10 count 152:6 counties 25:18 counting 114:1 county 154:9 couple 11:2, 11:9, 59:22, 64:18 course 23:4, 24:4, 29:7, 29:14, 29:19, 30:1, 30:4, 96:3 courses 19:13, 22:15, 23:7, 23:8, 23:10, 29:4, 29:5, 29:6, 29:7, 32:15, 32:16 coursework 35:3 court 1:1, 7:9, 8:6, 11:12, 12:3, 32:18, 38:5, 40:16, 63:1, 63:6
--	--	--	--

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

170

courtesy 12:1, 12:2	cycle 31:3, 31:4	decide 142:1	demographic 16:15, 56:12,
courthouse 4:7	D	deciding 159:6	73:21
create 49:19, 56:10	data 5:14, 5:16,	deem 95:2	demonstrated 140:12
credibly 156:17	5:20, 26:15,	deemed 84:9, 84:13,	denominator 81:12, 98:21,
credits 23:22	31:19, 49:4,	96:6	122:14, 123:2,
criteria 35:22	49:7, 52:19,	defeat 17:17, 105:17	123:3, 123:4,
criticism 145:10	53:18, 53:22,	defeated 86:6, 90:14,	123:5
critique 143:13, 145:17	55:20, 55:22,	93:15, 105:20,	department 28:22, 29:12,
cross 137:13	56:14, 56:18,	105:22	29:20, 34:5,
crossover 23:22, 84:1	57:7, 58:1,	defendants 1:9, 4:2, 7:19,	62:11, 62:15,
crr 1:22	58:12, 58:20,	7:21, 8:1, 8:18,	66:7
current 74:2, 120:18	59:2, 59:5,	9:2	departments 29:3
currently 40:6	59:14, 59:20,	defended 89:2	dependent 48:19, 48:22
curriculum 14:4, 24:11,	59:22, 60:3,	defense 37:7	depending 42:5
30:12, 30:16,	60:6, 60:21,	define 41:21, 43:10,	depiction 136:19
30:20	61:2, 69:17,	109:2, 109:14	depos 7:14, 8:8
curve 44:20, 131:13,	72:4, 74:10,	defining 52:16	deposed 11:3, 37:18
138:14, 138:20,	74:16, 88:11,	definitely 26:14, 35:11,	deposition 1:12, 2:1, 5:7,
139:18, 139:20,	90:17, 106:13,	36:21, 96:20,	7:6, 7:14,
140:16	106:18, 106:19,	107:15, 156:18	37:20, 37:21,
customization 126:5	107:18, 119:10,	definition 17:11, 49:12,	110:12, 110:16,
customs 21:6	119:18, 119:22,	71:22, 109:16,	159:13, 161:3
cut 94:12	127:7, 128:4,	117:19	describe 14:21, 23:5,
cut-off 139:8	141:6, 146:6,	degree 22:13, 23:20,	34:11, 44:5,
cv 14:10, 14:14,	151:8, 155:12	28:11, 42:1,	47:11, 56:7,
18:16, 34:2	date 7:11, 41:18,	43:6, 125:1,	125:11
cvap 49:15, 119:22	74:13, 93:2	150:15, 157:10,	describes 12:18, 53:8
	dated 12:10	157:18, 158:8,	describing 13:16
	davenport 87:21, 88:4,	158:19	design 34:15, 143:6
	89:4, 89:6,	delays 26:3, 27:6	designating 87:14
	89:11, 90:4	delivery 159:17	designation 12:12, 96:12
	davis 51:16, 51:20,	demographer 15:15	
	154:6, 154:13,		
	154:15		
	day 21:10, 26:1,		
	27:22, 74:2,		
	161:14		
	decennial 73:14, 74:17,		
	74:20, 75:5		

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

171

detail 14:11	96:14, 99:20, 116:12, 118:19, 124:8	disc 7:5, 110:11, 110:15	district 1:1, 1:2, 2:14, 7:9, 94:19, 121:3, 161:22
details 138:13	differences 42:8, 54:15	disclosed 36:14, 40:8, 40:15, 66:9	districts 16:18, 16:19, 16:21, 93:4, 93:6, 120:7, 120:21, 121:5
determinants 34:8	different 24:22, 29:15, 32:16, 36:19, 42:11, 43:3, 43:11, 43:12, 44:12, 46:17, 48:15, 55:15, 58:16, 59:13, 59:21, 83:12, 83:18, 84:4, 86:12, 96:15, 96:16, 96:19, 98:17, 105:9, 109:8, 116:10, 116:14, 122:21, 123:5, 124:14, 124:16, 124:19, 124:21, 125:2, 125:4, 125:6, 125:9, 125:10, 126:6, 126:7, 126:21, 127:1, 142:2, 143:6, 144:4, 155:13	disclosure 37:3, 37:12, 40:11	divided 122:9
determinations 100:10		disclosures 5:12, 13:6	doctoral 24:14, 28:11
determine 27:5, 44:22, 57:6, 59:1, 76:19, 86:6, 86:9, 87:5, 117:4, 117:8, 119:7		discount 111:12	document 21:7, 133:15
determining 59:8, 91:7		discussed 114:3, 116:9	documents 10:13, 14:2, 14:12, 19:4, 43:18
devalue 83:9		discussion 41:11	doing 20:3, 31:17, 46:12, 124:15, 134:20, 136:14, 144:6
devalues 83:11		dispersed 44:8	done 34:20, 59:17, 127:4, 145:19, 159:7
develop 30:12, 31:18, 34:7, 38:13, 38:19, 68:20, 69:2		dispersion 44:5, 44:16, 53:15, 71:2, 107:10, 156:18	dorchester 10:2
developed 30:15, 31:20, 33:21, 97:16, 106:4, 142:14	differently 122:4	displayed 124:1	dots 53:8, 53:9, 53:10, 53:13
development 35:22, 48:12	differs 98:15	disproved 139:11	double 23:22, 86:22, 87:19, 98:8, 122:16, 122:17, 123:11, 137:2
deviation 131:12, 132:5	difficulty 120:11	disseminate 9:22	double-checked 103:7
deviations 138:14	digest 133:16	dissertation 24:18, 24:19, 34:7	doubled 80:12, 98:21
dictate 72:21	directing 75:6	distinct 109:8, 109:10, 109:15	doubles 136:9
diezel 105:1, 106:1	direction 136:21, 161:8	distinctions 47:13	doubling 87:3, 121:12, 121:21
differ 142:22	directions 136:7	distinguish 104:20	doubt 151:8
difference 39:8, 43:8, 60:2, 77:18,	directly 35:2, 67:20	distinguishable 103:16	
	director 35:16	distribution 27:21, 28:2, 28:3, 28:4, 44:15, 44:18, 49:20, 131:19	
	disagrees 113:9	distributions 139:1	

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

172

douglas 1:13, 2:1, 5:2, 7:6, 8:14, 9:12, 110:12, 110:16, 159:13 down 11:12, 14:19, 33:8, 117:14, 124:12, 155:20, 157:2 downloaded 119:22 dozen 30:10, 35:19, 142:16 dr 5:10, 5:16, 5:20, 8:20, 64:18, 86:1, 92:7, 110:19, 111:4, 119:16, 125:22, 143:12, 145:18 draw 16:14, 16:18, 56:13, 136:13, 139:20, 140:16 drawing 17:1, 47:5 drawn 17:3, 18:13, 59:15 drive 4:7 driven 68:7 dropped 97:12 due 105:17, 105:20, 114:18 duly 8:15 during 21:10, 27:22, 28:18, 83:20 duties 28:19	E e-mails 66:6 each 21:17, 42:16, 43:15, 46:15, 47:5, 53:8, 67:21, 68:1, 68:11, 80:12, 80:17, 89:20, 92:2, 98:18, 107:20, 109:16, 109:18, 118:12, 118:15, 119:6, 122:10, 124:14, 126:16, 131:7, 131:8, 138:21, 139:2, 139:7 earlier 67:18, 114:3, 116:9, 121:19, 133:4 early 34:21, 35:1 earn 22:12, 23:20, 23:21, 128:17 earned 83:17, 90:18, 90:20, 91:20, 100:2, 122:3, 129:7, 129:18 earns 116:21 easier 147:9, 153:11 eastern 1:2, 7:9 easy 47:4, 55:9, 57:13 ecological 33:20, 47:3, 47:10, 47:12, 47:16, 47:17, 48:8, 48:19, 55:3, 56:4,	56:9, 56:16, 57:4, 57:7, 57:9, 57:20, 57:21, 58:5, 58:19, 59:3, 60:12, 60:20, 61:9, 61:14, 61:22, 62:17, 63:2, 63:7, 63:9, 63:14, 67:12, 67:22, 74:22, 75:1, 91:16, 91:17, 92:1, 95:19, 99:21, 100:1, 114:8, 114:9, 114:12, 116:11, 126:5, 126:7, 130:9, 130:12, 130:15, 130:19, 132:19, 155:4, 155:10, 157:5 economic 23:8, 130:12 economics 22:15, 22:16 education 32:21 effect 73:2, 93:4 efficient 149:5 effort 21:14, 21:15, 22:1, 134:18 efforts 111:21 ei 80:12, 81:5, 100:7, 157:6 either 136:21, 148:20, 149:8, 151:3, 153:12 elect 118:1, 118:4 elected 98:14, 104:17	election 20:6, 20:7, 21:2, 21:9, 21:20, 25:5, 25:10, 25:22, 29:11, 29:22, 35:15, 72:1, 72:5, 72:7, 75:21, 76:10, 80:3, 81:5, 82:5, 82:9, 82:20, 83:9, 83:10, 84:18, 86:17, 92:16, 92:17, 92:21, 93:11, 94:5, 95:13, 96:1, 98:3, 100:14, 100:18, 101:15, 103:14, 104:15, 105:2, 113:20, 114:21, 116:22, 121:2, 128:16 elections 20:10, 20:14, 21:18, 21:19, 22:18, 24:20, 25:7, 25:13, 29:21, 30:2, 30:7, 31:20, 34:13, 71:18, 72:6, 72:8, 72:9, 72:19, 72:20, 73:5, 73:7, 73:11, 73:15, 73:17, 73:18, 75:10, 85:7, 86:19, 91:9, 94:4, 96:4, 101:16, 121:12, 122:5, 158:15 elective 23:10 electronic 67:1 elizabeth 10:6
--	---	---	---

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

173

<p>elmendorf 154:12 else 63:13, 70:12 else's 38:15 empirical 15:5, 34:13 employed 10:8, 64:4, 161:10 enable 17:16 encounter 60:14 end 110:11, 153:17, 159:12 ended 32:2 ends 55:16 enormous 126:15 enough 11:5, 12:21, 14:18, 18:15, 22:8, 24:9, 30:19, 35:4, 36:11, 49:18, 53:16, 63:12, 65:12, 67:5, 69:19, 73:3, 74:12, 116:22, 125:9, 133:11, 133:13, 137:13, 149:3, 149:11, 149:13, 154:19 entered 24:7 entire 83:16, 100:18, 124:12 environmental 29:17 environments 155:13 equal 72:17, 80:19,</p>	<p>136:22 equivalence 5:17, 5:21, 42:22, 63:22, 124:5, 124:8, 124:9, 124:10, 124:18, 124:20, 132:18, 132:21, 134:1, 134:8, 137:10, 138:7, 138:16, 140:12, 141:18, 141:21, 142:5, 142:9, 143:3, 143:9, 143:12, 143:19, 144:3, 145:2, 145:6, 145:9, 145:12, 146:2, 146:8, 150:18, 150:21, 151:9, 151:19, 153:2 equivalent 139:10 er 80:11, 81:5 eric 76:18 error 43:16, 44:11, 44:14, 89:16, 123:6, 131:10, 131:16, 131:17, 132:9, 132:10, 133:3, 133:7, 134:9, 147:5, 149:1, 150:8, 150:14 errors 131:14 esquire 3:3, 3:10, 4:3, 4:4, 4:5 essentially 16:12, 122:16, 131:15 est 130:6 establish 155:19, 157:1</p>	<p>established 70:11 estimate 42:10, 42:16, 43:13, 45:7, 45:9, 45:18, 51:3, 53:20, 68:6, 69:8, 69:21, 70:10, 70:19, 71:7, 78:1, 78:22, 79:2, 99:21, 100:3, 107:15, 107:16, 108:1, 108:11, 108:20, 117:6, 117:12, 126:17, 130:6, 131:7, 131:11, 131:12, 131:13, 132:3, 133:1, 133:5, 135:8, 136:11, 137:5, 140:15, 146:17, 148:2, 148:20, 150:7, 155:11 estimated 90:18, 99:7, 126:4, 133:8, 135:12 estimates 31:19, 38:9, 43:19, 47:20, 48:18, 52:6, 52:7, 52:21, 53:4, 57:4, 58:2, 59:12, 68:1, 68:13, 68:18, 68:21, 69:3, 81:5, 91:17, 92:2, 94:9, 96:11, 99:22, 106:4, 106:12, 114:7, 114:11, 125:19, 126:16, 146:4, 150:15, 158:12 et 1:4, 1:8, 7:7,</p>	<p>7:8, 78:6 ethnic 129:16, 131:7, 131:8 eval 100:8 evaluate 26:16, 46:14, 107:6, 108:8 evaluated 97:21, 98:2, 98:5 evaluates 46:21 evaluating 16:20, 29:15, 38:8, 38:14, 46:17, 49:1, 57:17, 60:10, 61:15, 73:1, 100:9 evaluation 100:4 even 12:10, 53:11, 65:17, 114:12, 145:12 ever 11:2, 96:4 every 31:5, 57:16, 74:11, 129:10 everything 45:15, 146:3, 154:22, 157:8, 157:16 evidence 58:15, 60:5, 125:9, 143:22 evidenced 158:3 evolution 18:18 exact 25:15, 102:22, 106:20 exactly 51:6, 55:11,</p>
--	--	---	--

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

174

107:17, 121:5, 122:17, 123:10, 123:15, 126:1, 130:17, 135:19 examination 5:2, 8:18 examined 8:17 example 44:6, 79:12, 108:2, 128:21, 129:3, 131:21, 133:4, 139:17 exceed 51:15, 58:7, 128:18 exceeding 49:19, 51:22 except 18:12, 72:22, 103:1, 105:1 exchanged 66:6 excuse 75:4, 103:3, 115:2 exercise 20:8, 21:5, 59:10, 112:7, 150:3 exhibit 5:7, 5:8, 5:9, 5:11, 5:13, 5:14, 5:15, 5:19, 6:2, 6:5, 10:16, 10:17, 13:1, 13:3, 13:20, 13:21, 14:2, 41:13, 110:21, 113:13, 127:22, 128:1, 133:1, 133:17, 136:1, 136:2, 136:3, 140:4, 140:9, 144:9, 144:13, 144:14, 144:19, 144:20, 146:7, 149:14,	150:3 exhibits 7:2, 12:9, 14:3 exist 61:6, 69:12, 78:5 exists 155:13 exp 121:15 expanded 120:12, 120:16 expect 21:6 expected 84:2 expedite 159:17, 159:18, 160:5 experience 142:6 experiences 32:21 experiments 142:20 expert 5:8, 5:11, 9:4, 12:10, 12:11, 13:6, 14:5, 15:19, 16:13, 16:22, 37:1, 37:5, 37:15, 38:10, 39:1, 40:2, 40:5, 40:22, 41:3, 41:4, 41:9, 41:18, 63:9, 63:14, 63:19 expertise 14:22, 15:2, 19:21, 21:1, 22:10, 35:8 experts 66:17, 67:4 expires 161:16 explain 25:12, 46:12,	53:6, 55:11, 67:12, 118:19, 119:13, 120:5, 122:1, 128:13, 132:16, 134:2 explained 121:18 exposure 20:9 extend 123:6 extending 36:5 extent 12:18, 39:6, 72:22, 81:12, 87:7 extraordinary 54:11 extrap 58:10 extrapolating 58:1, 58:16 extrapolation 58:11 extreme 54:11, 54:19, 55:13, 56:15, 57:18, 69:12, 136:18 extremely 104:22 extremes 55:16, 56:2 eyeball 59:9	factoring 134:9 factors 16:10, 18:2 faculty 29:2 fair 11:5, 12:21, 14:18, 17:11, 17:19, 17:21, 18:15, 22:8, 24:9, 30:19, 35:4, 36:11, 53:16, 63:12, 65:12, 67:5, 73:3, 74:12, 149:3, 149:11, 154:19 fairfax 119:19 fairly 18:5 fall 32:2 fallacy 155:11 far 30:22, 39:16, 53:8, 86:12, 127:19 fast 33:13 fault 71:14 featured 72:10 featuring 95:5 federal 63:6 feel 113:12 few 27:14, 34:11, 130:17, 142:16 field 25:5, 25:14 figure 52:13, 124:16,
F			
		fact 53:18, 60:1, 80:1, 85:12, 98:13, 98:20, 103:17, 105:10, 106:18, 122:12, 137:11 factor 16:14, 17:6, 81:7	

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

175

146:21 filed 35:18 files 120:6, 120:9, 121:10 fill 21:7 final 75:16, 154:3 finally 11:22 finance 37:7, 40:9, 141:22 financial 161:12 find 42:9, 50:15, 50:19, 51:13, 60:5, 72:9, 73:16, 82:4, 84:20, 90:7, 90:22, 91:4, 92:5, 92:7, 93:9, 101:11, 102:7, 124:22 finding 44:5, 44:15, 44:17, 116:15 findings 125:20 fine 46:10, 70:9, 70:13, 146:14 finish 121:16 first 8:15, 10:15, 11:10, 12:8, 20:9, 31:10, 37:5, 40:21, 41:2, 41:7, 44:2, 46:9, 46:20, 55:5, 55:6, 59:13, 64:21, 71:21, 94:12, 98:2,	98:4, 101:17, 101:22, 119:13, 128:4, 128:5, 130:13, 130:14, 142:5 first-year 29:10 fits 48:7, 59:8 five 112:19 fix 29:20 flores 102:13, 103:1, 104:17, 104:22, 105:16, 105:22, 113:21, 114:1, 114:10, 115:1, 148:1, 148:10, 150:4, 150:6, 150:10, 150:18, 151:7, 151:17, 152:2, 152:6 focus 100:4 focused 124:13 focusing 46:5 follow 76:1 follow-up 127:6 follows 8:17 footnotes 65:6, 65:8, 119:17 foregoing 161:3, 161:4 foresee 16:17 form 15:22, 18:7, 25:22, 38:17, 41:5, 48:2, 60:16, 70:1,	70:4, 70:22, 74:4, 74:18, 75:4, 83:2, 84:7, 88:2, 88:16, 94:20, 95:17, 97:18, 107:12, 107:21, 132:7, 140:21, 146:11, 151:4, 151:21, 153:6, 156:15, 157:14, 157:21 formal 22:14 formally 21:22 former 33:6, 33:17, 34:4 forming 26:7 forms 21:7 forth 106:18 forward 11:21, 21:21 found 49:22, 51:5, 84:22, 85:22, 93:22, 101:14 four 24:21, 51:19, 52:2, 53:2, 53:9, 53:12, 53:18, 54:8, 55:20, 96:4, 112:18, 121:1, 152:19 four-year 31:4 francisco 36:7 frankly 145:8 free 20:14, 113:12 friday 160:2, 160:3,	160:4 front 12:13, 110:21, 150:5 full 9:10, 23:15, 24:3 fun 67:13 function 158:1 furman 85:8, 85:14, 87:6, 87:7, 87:13, 87:17, 88:5, 88:10, 88:20, 89:2, 94:8, 94:11, 94:14, 94:16, 95:15, 96:17, 96:20, 97:6, 97:12, 98:4, 111:12, 111:15, 111:16 furman's 95:22, 97:10 further 137:20 <hr/> G <hr/> gaining 97:13 gave 133:4 general 54:2, 54:4, 57:22, 59:19, 86:19, 138:17, 138:18 generally 23:4, 61:17, 119:3 generate 68:12, 68:13, 68:17, 108:20, 117:6, 123:21, 125:17, 126:10, 126:15, 131:14
---	--	---	---

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

176

<p>generated 44:13, 45:19, 68:1, 120:8, 124:4, 124:7, 125:21, 132:18, 148:21 generates 126:13, 132:20 generating 64:19, 68:3, 106:3 gentleman 30:13 geographic 71:2, 120:14 georgia 101:21 gerald 3:10, 4:5, 7:22 gerry 9:1 gestures 11:12 getting 10:12, 108:4, 160:4 gingles 16:10, 16:14, 16:20, 17:6, 17:14, 17:20, 18:6, 18:11, 35:10, 35:21, 36:4 gis 66:6, 120:19, 121:10 give 11:22, 12:2, 56:8, 91:16, 91:19, 127:8, 127:12, 139:21, 143:7, 143:8, 146:18, 147:20 given 11:18, 99:12, 161:5 giving 21:7, 65:22</p>	<p>go 11:8, 12:22, 13:20, 20:1, 23:18, 25:17, 50:10, 81:20, 83:14, 83:22, 121:15, 134:22, 136:21, 147:11, 149:12, 151:9, 153:10 goal 72:22, 95:8, 143:22 going 10:12, 11:21, 12:8, 17:5, 21:21, 39:5, 46:8, 64:12, 77:12, 133:15, 135:6, 138:2, 139:21, 143:7, 143:8, 144:9, 146:3, 147:20, 149:17 gold 61:12, 61:15, 61:22, 95:16, 95:20, 100:7 gold-standard 60:10 goldman 20:1 good 8:20, 8:21, 60:2, 149:10, 160:3 gotten 28:7 grad 32:19 graduate 22:14 graduated 19:7, 19:20 graduating 15:6 grant 52:8</p>	<p>graphical 57:11, 136:19 graphically 47:4 greater 49:15, 146:19 green 134:7, 136:6, 137:3, 137:12, 137:15, 139:13, 140:9, 140:15 ground 11:9 group 17:8, 43:13, 43:14, 46:3, 46:15, 48:13, 107:4, 107:9, 109:16, 117:22, 118:3, 118:5, 118:8, 118:12, 118:15, 119:6, 119:8, 124:16, 124:17, 124:19, 131:7, 131:8, 133:2, 139:2, 142:1, 143:4, 143:5, 143:18, 155:12 group's 17:18 group-level 47:14 groups 16:15, 42:8, 42:10, 43:8, 45:20, 45:21, 58:15, 109:8, 109:11, 109:15, 109:18, 109:22, 117:20, 118:12, 124:9, 124:14, 124:21, 124:22, 126:16, 126:21, 129:16, 138:21, 142:20, 143:1, 143:13, 144:2, 155:21, 156:3,</p>	<p>156:10, 156:18, 158:1, 158:5, 158:13, 158:17, 158:18 guess 10:12, 15:6, 31:9 guys 89:19</p> <hr/> <p>H</p> <hr/> <p>habitual 85:10, 87:10, 97:13, 97:15 half-a-dozen 35:19 hall 86:16, 90:7, 113:19 hand 8:11, 161:14 handwritten 6:5 happened 73:10, 93:3 happens 75:3, 151:6 happy 11:17, 39:9, 70:5, 155:6 hard 147:3 harless 3:3, 8:2, 15:22, 18:7, 38:17, 39:5, 41:5, 48:2, 50:1, 50:4, 50:9, 50:11, 60:16, 66:18, 70:1, 70:4, 70:22, 74:4, 74:6, 83:2, 84:7, 88:2, 88:16, 89:19, 94:20, 95:17, 97:18, 107:12, 107:21, 132:7,</p>
--	--	---	--

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

177

134:12, 140:21, 146:11, 146:22, 151:4, 151:21, 153:6, 155:5, 156:15, 157:14, 157:21, 159:1, 160:6, 160:9 harris 4:5, 7:22, 32:14 hartford 10:7 head 51:8, 62:3, 62:21, 63:4, 63:17, 70:14, 72:14, 142:14 header 85:4 heads 149:6 hear 46:10 heard 62:3, 62:4 heavily 46:8 hebert 3:10, 8:4, 64:8, 110:8, 127:13, 159:9 held 2:2 help 78:7, 78:16 helpful 11:10, 76:13, 147:1 helping 33:14 henley 91:1, 116:4, 116:16 henry 33:4, 33:16, 34:4 here 7:5, 9:1,	15:18, 27:13, 29:21, 40:12, 57:20, 75:15, 81:3, 94:7, 94:9, 110:15, 116:19, 118:20, 118:22, 132:22, 134:18, 136:14, 146:5 hereby 161:4 hereunto 161:13 herrnson 30:8, 30:14 high 104:22, 133:13, 137:12 higher 52:18, 97:6, 114:10 highlighted 103:16 highlighting 85:12 hispanic 69:4, 69:12, 69:20, 70:11, 71:8, 71:11, 106:13, 107:11, 108:2, 108:15, 117:8, 117:15, 130:4, 132:1, 133:18, 134:7, 135:12, 137:6, 150:19, 157:12, 158:10, 158:21 hispanics 108:22, 109:1, 118:16, 157:19 historian 15:13 historically 120:10 history 35:21 holland 37:8	holloway 1:4, 7:7 hom 56:18 homogeneous 46:20, 47:1, 49:9, 49:11, 49:14, 50:16, 50:20, 52:3, 52:12, 52:16, 52:20, 53:2, 54:6, 54:10, 54:18, 55:7, 55:13, 55:14, 55:19, 56:18, 57:5, 67:21, 69:11, 69:15, 74:22, 91:18, 92:2, 114:8, 157:6 hour 36:15 hours 64:21 however 134:16 hp 80:11, 81:5 huh-uh 11:13 hundred 25:16, 58:14, 120:16, 134:4 hybrid 23:17 hypotheses 145:11 hypothesis 42:19, 125:8, 125:10, 133:13, 139:11, 141:11, 143:16, 143:17, 144:1, 144:7, 145:15, 145:19, 145:21, 151:11 <hr/> I <hr/> idea 59:19, 78:21,	109:3, 118:11, 142:15, 146:16 ideal 42:18 identification 7:3, 13:4, 13:22, 128:2, 136:4, 140:5, 144:21, 149:15 identified 9:4, 19:3, 29:4, 49:14, 51:1, 51:13, 72:5, 91:21, 95:20, 99:19, 100:9, 102:16, 115:21, 128:11 identify 7:16, 25:5, 79:19, 95:8, 101:5, 102:10, 141:8, 153:22 identifying 46:18, 118:10 illinois 3:7, 9:19 illustration 140:18, 141:1, 141:3, 141:4 illustrative 16:18 immediately 28:10, 28:13, 102:22 implications 34:14 import 83:10 important 27:20 inability 87:10 inaccurate 11:19 incidental 154:18 included 85:8, 85:11,
---	---	---	--

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

178

94:8 includes 67:1, 67:3 including 116:11 inclusion 131:1 incomplete 11:19 incongru 103:8 incongruence 150:16 incongruent 150:14 incongruity 103:8 inconsistent 14:8, 14:13, 14:15 independent 38:14, 43:15, 108:5 indicating 67:15, 112:20, 136:16, 140:17, 147:16 indicator 60:3 indistinguishable 99:15 individual 117:22, 118:5, 118:8, 119:6, 119:8, 155:12 individuals 42:8, 47:13, 102:10, 124:14 infamous 11:13 infer 106:17 inference 33:20, 34:15, 47:10, 47:12, 47:16, 47:17, 48:8, 48:19, 60:12, 61:10,	61:15, 61:22, 62:18, 63:2, 63:7, 63:10, 63:14, 67:13, 75:1, 91:17, 92:1, 95:19, 99:21, 114:9, 114:12, 116:11, 126:5, 126:7, 130:9, 130:13, 130:15, 130:20, 132:19, 155:4, 155:10 influencers 35:8 inform 35:13, 36:3 information 12:15, 22:3, 27:7, 34:21, 47:14, 56:12, 57:16, 68:9, 69:6, 73:22, 74:17, 74:19, 120:14 informed 22:10, 32:22 informing 65:3, 66:2 informs 19:20, 61:14 initial 9:14, 9:15, 12:10, 14:5, 16:5, 154:4 initiate 48:10 inquiry 105:18 insignificant 95:4 instance 56:22, 60:4, 94:16, 114:14, 156:3 instead 45:8, 53:18, 81:19, 147:6	instructors 54:22 integration 156:1, 156:13, 156:17 intend 9:21, 18:10 intending 16:22 interchangeably 77:10 interest 20:13, 161:11 interpret 17:14, 158:4 interpretation 58:8, 157:5, 158:16 interval 43:17, 44:3, 44:4, 44:13, 45:4, 45:8, 45:17, 45:21, 45:22, 46:2, 49:8, 53:3, 53:7, 53:12, 131:15, 132:13, 134:13, 135:13, 135:17, 135:20, 137:11, 137:18, 139:5, 150:7 intervals 45:14, 45:19, 52:22, 126:14, 126:22, 131:14, 136:1 interview 26:19, 26:22 interviews 21:8 introduce 143:14 introduction 29:9, 29:13 inverse 144:4, 144:6 involved 39:18, 63:11,	85:6 involvement 20:8 involvement's 39:21 involves 46:16 involving 37:10 issue 50:8 issues 29:18 item 119:13 itemized 41:16 itself 108:12, 129:12, 151:11 <hr/> J <hr/> jackson 99:4, 100:13, 102:13, 104:17, 104:21, 105:16, 105:22, 113:20, 114:12, 115:8, 131:22 january 161:16 job 1:20, 28:13 joe 9:1 joint 23:20, 28:21 jointly 62:14 jones 96:7 joseph 4:4, 7:20, 8:4 joyce 52:8 jsp 24:8 judgment 38:5
--	---	--	---

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

179

july 12:11, 15:21, 40:14, 41:20, 63:20, 64:4, 75:18 jumping 42:21 june 32:11 jurisprudence 24:5, 24:8, 24:13, 28:12	14:7, 18:20, 26:11, 26:17, 27:1, 29:4, 30:9, 35:18, 54:14, 59:9, 62:15, 62:16, 62:20, 63:3, 63:8, 71:1, 72:13, 75:20, 81:16, 82:14, 83:11, 91:22, 92:22, 93:2, 93:6, 93:17, 102:3, 105:1, 107:18, 107:22, 119:20, 121:4, 121:18, 139:15, 141:4, 142:14, 142:17, 146:15, 146:16, 156:16 kurt 4:4, 7:20	later 11:20, 94:13 law 2:2, 13:16, 13:17, 23:10, 23:11, 23:13, 23:18, 24:10, 24:22, 25:5, 25:10, 28:16, 28:22, 29:5, 29:8, 29:9, 29:11, 29:17, 29:18, 30:7, 32:17, 35:14, 35:15, 36:6, 37:7, 40:10, 154:6, 155:17 laws 21:6 lawyer 62:17 lawyers 35:17, 36:6, 39:2 lead 123:16 leading 33:19 leads 125:11 learn 25:21, 26:4, 26:6, 27:7 learned 27:19, 27:21, 54:21 learning 20:9, 21:5 least 41:18, 42:22, 94:12, 103:10, 128:18, 140:19, 147:19, 150:17 leave 31:6 leaving 21:8, 26:9 led 83:9, 84:5	left 26:15, 26:20 legal 2:4, 3:4, 3:11, 29:6 legitimate 59:10 length 26:17, 27:17, 27:18, 137:2 less 43:19, 45:4, 45:6, 45:9, 45:11, 49:6, 49:7, 86:13, 91:19, 93:20, 93:21, 138:1 let's 34:10, 41:13, 49:9, 55:3, 55:5, 110:6, 112:12, 129:4, 136:1, 140:7, 140:8, 149:4, 149:12 letters 29:1 level 48:17, 52:18 licensed 11:7 life 11:6 light 157:8, 157:16 liked 78:20 likely 73:22, 125:3, 125:5 limit 18:5 limitation 58:5 limitations 57:19 limited 38:8
<hr/> K	<hr/> L		
keep 127:10 kempsville 84:17, 84:22, 85:22, 92:5, 102:9, 104:14, 113:18, 113:22, 129:5, 129:21 kevin 33:4, 33:15, 33:19, 62:4, 62:10 kidd 5:10, 111:4, 125:22, 145:18, 154:1 kidd's 119:16, 143:12 kind 16:19, 19:17, 34:7, 44:19, 56:7, 85:12, 126:2, 127:2, 136:13, 149:13 kinds 29:15 king's 67:12, 114:9, 157:6 kings 52:8 knew 26:5 know 11:7, 11:16,	lack 70:15, 85:10 lake 52:8 language 17:7, 17:17, 45:10, 109:11, 125:7 large 31:19, 45:14, 45:17, 45:21, 108:9, 137:11 larger 45:3, 49:8, 71:11, 129:11 last 29:8, 31:6, 60:19, 73:6, 73:7, 73:12, 73:13, 73:14, 73:17, 73:19, 93:7 latasha 1:4		

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

180

line 25:22, 26:7, 26:9, 26:15, 26:17, 26:18, 26:20, 27:17, 47:6, 56:13, 58:13, 58:16, 59:4, 59:8, 59:15, 59:19, 137:7, 140:15 line-drawing 59:10 linear 58:6, 58:21, 59:2, 59:4, 59:14, 60:1, 60:3, 60:6, 60:21, 68:4, 68:8 link 13:7, 13:11, 13:12 list 40:12, 51:14 listed 94:7, 112:10, 121:1, 129:5 listing 35:7 literature 25:11, 42:7, 42:18, 52:12, 61:19, 138:13, 145:6, 145:20 litigation 9:22, 16:11, 35:16, 36:1, 60:11 little 33:9 living 20:5, 20:13 load 24:4 loads 24:1 local 21:6, 31:19,	37:11 location 70:16 locations 70:17 locked 21:12 logic 55:14, 107:5, 107:6, 108:8, 124:20, 125:4, 128:15, 138:18, 144:6, 151:10, 151:15 long 25:22, 26:10, 27:8, 27:16, 75:4, 110:5 longer 151:16, 151:18 look 13:9, 15:1, 51:9, 72:14, 88:21, 100:1, 102:21, 106:20, 112:12, 114:4, 128:4, 129:4, 133:5, 133:10, 135:6, 153:10 looked 22:17, 24:22, 61:2, 94:4 looking 20:15, 34:19, 55:11, 55:12, 72:2, 78:4, 91:11, 91:20, 100:5, 100:12, 106:21, 109:5, 112:17, 113:11, 115:1, 116:10, 138:6, 139:5, 141:4, 153:8, 156:2, 156:8 looks 13:14, 48:14, 136:15, 147:15, 152:19	losing 152:1 lost 114:18, 129:20 lot 84:1, 149:5, 155:13 loving 67:16 low 141:12 <hr/> M <hr/> made 61:21, 88:5, 104:4, 117:16, 125:22 major 19:14 majority 17:16, 55:22, 83:17, 139:13, 141:5 make 10:15, 13:20, 47:13, 58:1, 69:7, 71:7, 77:15, 81:7, 89:19, 103:10, 108:5, 121:11, 121:21, 127:8, 134:17, 134:22, 140:2, 141:14, 144:14, 147:3, 155:16 makes 134:10, 148:4 making 43:17, 43:18 managed 30:2 many 33:21, 35:18, 64:21, 70:14, 71:21, 72:9, 76:10, 76:14, 81:18, 101:14, 151:18, 152:1,	152:5, 152:16, 153:1, 153:3, 153:13 maps 16:15, 17:1, 17:2, 18:12, 25:6 mark 13:1, 42:17, 127:21, 134:16, 144:17, 149:12, 151:3 marked 7:2, 12:9, 13:3, 13:21, 114:20, 128:1, 136:3, 140:4, 144:18, 144:20, 149:14 marker 105:9 marks 110:11, 159:12 marney 1:22, 2:11, 8:7, 161:2 massachusetts 40:7, 40:10 master's 22:13, 22:19, 23:2 match 127:11, 127:15, 127:18, 130:12, 152:21 material 30:21, 54:14 materials 30:6, 65:18 matter 7:7, 15:3, 19:22, 38:1, 64:7 may-ish 32:4 maybe 35:19, 62:14, 103:2, 129:2,
--	--	--	---

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

181

<p>154:14 mayor's 85:3 mayoral 85:1 mean 14:7, 16:3, 26:13, 27:1, 42:16, 57:1, 58:9, 75:13, 99:19, 105:7, 107:2, 109:9, 118:8, 118:15, 120:3, 125:20, 128:9, 136:18, 139:16 meaning 23:21, 28:2, 126:9, 133:2 meaningful 125:17 means 43:12, 44:7, 45:4, 50:18, 58:11, 80:3, 81:16, 105:8, 108:14, 130:6, 137:12, 141:11 measure 34:9, 44:16, 122:20 measuring 46:6 mechanically 125:14, 126:4 mederos 1:22, 2:12, 8:7, 161:2 member 29:2 members 17:9, 33:4, 107:19 memory 51:12 mention 75:11 mentioned 55:10, 67:17,</p>	<p>126:13 method 43:8, 47:2, 47:3, 60:9, 61:18, 67:13, 67:18, 100:7, 155:9 methodologies 43:3, 43:5, 63:18, 68:12, 68:17, 68:21, 69:3, 71:9, 72:18, 80:21 methodologists 33:5 methodology 33:7, 33:18, 57:20, 62:18 methods 15:5, 69:14, 69:16, 70:3, 70:20, 91:12, 91:13, 100:5, 100:11, 106:4 michigan 62:11, 62:12, 62:13 middle 9:13, 9:15, 56:1, 103:2, 138:15 midpoint 136:10 might 17:1, 26:6, 58:17, 96:16, 144:8, 149:5, 150:13 miles 4:13, 7:13 mind 105:18, 153:11 minor 19:15, 19:16, 82:7 minorities 88:1, 89:7, 112:4, 114:10</p>	<p>minority-candida- te-of-choice 87:22, 97:14 minority-preferr- ed 77:22, 79:1, 79:9, 79:10, 113:4, 151:18 minus 44:7, 126:19, 133:3, 133:6, 133:7, 135:13, 146:17 minute 112:6, 128:13 mischaracterizing 50:12 misleading 58:20, 60:20 misunderstanding 79:6 mobilization 34:20 model 47:19, 68:3, 126:9, 126:11, 126:13, 130:10, 130:15, 130:20, 130:22, 131:3, 132:19 model's 58:8 models 33:21, 34:14 moment 9:9, 18:20, 55:4 monitor 7:12, 20:6, 20:11, 20:19 monitored 28:1 monitoring 21:2, 21:9, 21:14, 21:15 monitors 20:15 monroe 3:5</p>	<p>more 12:4, 14:11, 26:4, 43:19, 45:9, 46:14, 49:3, 49:4, 52:20, 53:1, 53:11, 53:22, 70:6, 70:7, 72:3, 72:19, 72:20, 73:18, 73:22, 76:12, 76:20, 84:2, 100:2, 105:4, 128:12, 139:1, 141:9, 145:12, 147:21, 149:5, 155:21, 156:3, 156:9 morning 8:20, 8:21 most 27:19, 35:2, 42:6, 46:22, 77:6, 91:16, 91:21, 92:18, 106:21, 109:4, 109:17, 109:20, 116:21, 118:13 motion 38:5 moving 28:8 much 10:14, 14:20, 27:16, 125:20, 139:7 multi-pages 14:10 multiple 23:19, 68:13, 70:17, 71:3, 131:1 multiply 147:5 multiplying 44:13 myself 120:1, 145:9</p>
--	---	---	---

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

182

N			
n	next	139:4	38:17, 41:5,
151:3	19:19, 19:20,	noticing	48:2, 50:1,
name	22:9, 31:1,	103:7	50:4, 60:16,
8:22, 9:11,	46:3, 76:2,	notwithstanding	66:18, 70:4,
10:17, 10:19,	80:2, 89:11,	114:3	70:22, 74:4,
18:22, 22:2,	96:12, 104:7	null	84:7, 88:2,
101:22, 142:13	nineteen	42:19, 139:11,	88:16, 94:20,
names	111:11	141:11, 145:11,	95:17, 97:18,
33:22	nods	145:18, 151:10	107:12, 107:21,
nearby	11:12	number	132:7, 140:21,
68:9	non-testifying	7:6, 7:10,	146:11, 151:4,
nearly	39:8	25:15, 33:3,	151:21, 153:6,
86:15	non-white	45:3, 51:7,	156:15, 157:14,
necessarily	49:15, 50:3,	53:14, 59:16,	159:1
53:5, 89:3,	67:20, 68:6	72:13, 81:17,	obligations
107:3, 130:11	nope	98:12, 106:10,	31:14
necessary	23:3	106:11, 108:19,	observe
12:4	normal	110:16, 114:13,	156:12
need	44:14, 44:18,	122:3, 122:6,	observed
10:14, 80:12,	131:18, 138:14,	122:7, 122:11,	26:14
98:8, 102:18,	138:19	122:15, 122:16,	obviously
128:12, 139:8,	normally	126:10, 129:12,	113:8
146:9, 156:5,	139:8	133:21, 138:1	occurred
159:16, 159:18,	northern	numbers	73:5, 73:7,
160:5, 160:7	25:18	80:11, 86:22,	73:12, 73:17,
needed	northwest	87:3, 87:19,	73:19, 92:17,
86:13, 86:22,	7:15	94:22, 97:6,	93:1
121:21, 128:17,	northwestern	98:9, 98:22,	occurrence
129:12	34:16	99:13, 103:1,	91:15
negate	notarial	103:6, 103:11,	ocean
82:21	161:14	103:12, 104:12,	52:8
negative	notary	117:14, 126:12,	october
58:7	2:13, 161:1,	127:11, 127:15,	1:15, 7:11,
neighborhood	161:21	127:18, 130:11,	161:15
25:16	note	130:13, 131:19,	offer
neither	34:11, 80:16,	132:17, 133:17,	16:22, 17:2,
161:9	83:15, 85:8,	140:8, 144:12,	18:10, 36:3,
network	96:11, 112:2,	153:8	116:19, 144:9
20:14	120:5	numerous	office
never	noted	126:10	4:6, 31:14,
28:1	29:21, 68:4	O	36:7, 72:11,
new	notes	object	120:14, 120:19
11:6, 30:16,	104:4	39:5, 83:2,	officer
30:17, 98:21	nothing	157:21	161:2
newtown	8:16, 26:5,	objecting	offices
51:16, 51:20	65:7, 81:3, 84:5	70:1	2:2
	notice	objection	officials
	2:11, 103:4,	15:22, 18:7,	21:9

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

183

offset 81:15, 81:16 often 155:4 oh 103:20 older 72:19 once 87:19, 98:20, 145:15 one 11:4, 20:4, 27:15, 30:22, 31:10, 37:5, 43:13, 45:18, 46:3, 46:14, 56:16, 58:4, 59:22, 67:15, 70:6, 70:7, 76:19, 79:5, 80:22, 81:9, 81:19, 82:2, 82:11, 86:21, 87:4, 91:13, 91:18, 105:4, 105:14, 106:14, 112:18, 114:1, 119:17, 122:5, 122:7, 122:11, 122:18, 124:16, 124:18, 127:12, 129:9, 139:22, 147:4, 147:20, 152:10, 156:21 one-off 30:21 one-time 73:2 only 37:21, 39:22, 53:18, 55:20, 81:19, 83:16, 130:22, 140:8, 143:12, 145:14, 145:15 open 21:11	opinion 41:19, 85:9, 89:1, 108:14, 117:17, 157:22, 159:3, 159:4 opinions 16:13, 18:1, 18:10, 33:1, 35:9, 36:3, 38:6, 38:14, 38:15, 38:19, 123:12 opponent 129:22 opportunities 34:12, 111:8, 111:13, 111:22 opportunity 20:13 opposed 54:19, 98:19, 133:21 order 42:15, 46:5, 128:15, 129:9 organization 21:16, 21:17, 37:11 origin 106:19 original 10:16, 41:18, 43:2, 46:5, 57:3, 60:5, 63:19, 64:1, 64:22, 65:4, 65:9, 67:7, 68:5, 70:20, 72:1, 75:7, 84:15, 96:8, 106:3, 108:1, 113:4, 113:5, 113:12, 114:2, 117:3, 117:9, 117:11, 119:8, 123:13, 125:18, 126:2, 131:4, 152:22, 153:5,	153:11, 153:14 originally 111:11, 127:4 other 20:4, 20:22, 30:13, 35:12, 36:2, 37:20, 37:21, 39:22, 40:4, 43:15, 48:22, 53:9, 57:15, 67:21, 77:10, 87:8, 87:17, 89:20, 99:21, 106:14, 107:20, 124:14, 142:19, 155:17 others 17:3, 18:13, 21:17, 22:3, 142:10 otherwise 161:12 out 21:7, 26:18, 33:14, 58:11, 75:10, 83:18, 84:3, 85:2, 87:14, 87:16, 102:18, 120:11, 124:16, 126:1, 136:9, 136:21, 145:13, 146:21 outcome 48:12, 48:13, 161:12 outlier 91:19 outside 9:22, 15:6, 18:11, 65:7 over 30:21, 43:22, 53:11, 89:20, 96:3, 120:22, 137:15, 137:21, 145:16 overall 32:17, 75:2,	129:22 overlap 45:22, 121:5, 133:11, 138:5, 138:9, 138:21, 141:10, 145:14 overlapping 126:22 overlaps 125:1, 139:1 overseas 34:20 own 14:22, 22:2, 38:13, 38:19, 42:16, 68:2, 119:22, 151:8 <hr/> <p style="text-align: center;">P</p> <hr/> packet 19:5 page 5:2, 5:7, 13:13, 16:5, 18:22, 19:3, 34:10, 37:2, 41:17, 51:14, 68:4, 75:6, 76:2, 77:12, 78:4, 78:5, 79:13, 79:14, 80:7, 80:8, 83:15, 84:18, 85:2, 93:18, 97:2, 97:3, 102:21, 102:22, 103:4, 104:4, 104:8, 104:13, 111:7, 112:10, 112:21, 113:9, 113:16, 114:21, 116:19, 118:21, 118:22, 119:10, 123:19, 124:1, 132:22, 135:8, 144:10, 144:11, 154:14 pages 1:21, 46:9
---	---	--	--

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

184

<p>paid 20:20</p> <p>paper 141:20, 142:14, 146:9</p> <p>papers 142:13</p> <p>par 20:18</p> <p>paragraph 51:16</p> <p>park 52:9</p> <p>parliamentary 20:7</p> <p>part 16:16, 29:1, 35:3, 66:9, 100:4</p> <p>participated 20:18</p> <p>participating 40:16</p> <p>participation 31:15, 40:7</p> <p>particular 21:1, 44:7, 48:13, 77:6, 92:17, 108:19, 133:2</p> <p>particularly 15:7</p> <p>parties 161:11</p> <p>parts 15:7, 26:6</p> <p>pass 138:7</p> <p>passed 94:11, 94:12</p> <p>patronize 11:8</p> <p>pattern 46:22, 73:2, 87:10, 91:11, 96:3, 97:13, 97:15, 100:5, 100:12, 105:15</p>	<p>patterns 55:12, 116:10</p> <p>paul 30:8</p> <p>pen 146:10</p> <p>pending 75:17</p> <p>people 21:8, 22:17, 26:9, 26:15, 26:19, 26:22, 27:2, 31:16, 44:6, 47:22, 80:18, 98:13, 122:12, 122:18</p> <p>percent 42:13, 42:14, 42:20, 44:6, 49:16, 49:17, 49:19, 50:16, 50:19, 50:22, 51:1, 51:4, 51:15, 51:17, 51:22, 52:12, 58:7, 58:12, 58:13, 58:17, 58:18, 65:20, 71:12, 80:19, 86:15, 90:18, 90:20, 93:20, 94:17, 95:3, 95:15, 109:21, 126:18, 126:19, 129:8, 129:19, 129:21, 132:1, 132:6, 132:11, 132:15, 133:6, 133:7, 133:9, 133:11, 133:12, 135:18, 135:20, 136:10, 137:6, 138:9, 138:13, 138:20, 139:2, 139:6, 139:8, 141:9, 141:11, 145:14, 145:15, 147:13, 147:14,</p>	<p>147:16, 147:17, 147:18, 147:19, 151:12</p> <p>percent's 146:19</p> <p>percent-ish 146:18</p> <p>percent-plus 49:21</p> <p>percentage 42:13, 44:9, 97:6, 129:16</p> <p>perfect 42:4, 125:15</p> <p>perform 107:19</p> <p>performance 16:17, 17:2, 18:12</p> <p>perhaps 14:16, 75:13</p> <p>period 28:18, 72:16, 83:16, 83:21, 120:22</p> <p>permissive 145:13</p> <p>permits 131:1</p> <p>person 77:1, 80:17, 122:11, 129:20</p> <p>personal 27:8</p> <p>personally 47:18</p> <p>perspective 39:19, 39:20, 55:8, 77:4, 77:19</p> <p>pertaining 12:15</p> <p>peruse 10:13</p> <p>pew 34:18</p> <p>ph 1:13, 2:2, 5:2,</p>	<p>8:14, 15:3, 15:6, 33:4, 35:3</p> <p>philosophy 19:9</p> <p>phrase 44:4, 62:3, 62:4</p> <p>piece 122:1, 146:9</p> <p>place 7:14, 53:11</p> <p>placebo 59:17</p> <p>places 25:18, 28:5, 106:13</p> <p>plaintiff 102:1</p> <p>plaintiff's 37:15, 38:10</p> <p>plaintiffs 1:5, 3:2, 5:11, 8:3, 8:5, 66:16</p> <p>plan 30:22</p> <p>planet 7:14, 8:7</p> <p>please 7:16, 8:9, 8:12, 9:10, 11:16, 33:9, 41:14, 47:11, 48:10, 64:11, 83:14, 110:10, 120:5, 147:8, 149:16, 159:11</p> <p>plot 47:7, 47:15, 47:17, 47:19, 53:10, 56:1, 56:10, 56:15, 59:11</p> <p>plotting 47:5, 59:4</p> <p>plurality 129:11</p> <p>plus 44:7, 126:18,</p>
--	---	--	---

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

185

<p>129:9, 133:3, 133:6, 133:7, 135:13, 146:17, 152:10 point 11:15, 11:19, 21:2, 23:17, 35:2, 43:1, 43:18, 45:7, 45:9, 45:12, 45:16, 46:5, 47:20, 48:18, 53:4, 57:4, 68:13, 68:17, 68:20, 69:3, 72:7, 81:8, 85:5, 102:18, 106:13, 108:20, 126:1, 132:3, 136:10, 137:5, 139:9, 140:15, 148:2, 158:12 pointed 58:11, 120:11, 145:13 pointing 33:22 points 44:9, 53:18, 55:21, 55:22, 56:14, 106:18, 130:17, 141:6 polarization 33:1 polarized 6:3, 15:2, 33:2, 35:5, 46:6, 46:18, 60:11, 61:16, 119:19 policy 13:17, 20:2, 22:13, 22:20, 23:9, 24:5, 24:8, 24:14, 28:12, 28:16, 29:1, 29:5, 29:13, 29:14,</p>	<p>29:16, 32:15, 32:18, 32:19 political 15:9, 15:12, 19:11, 19:13, 20:7, 22:11, 22:15, 22:16, 23:10, 24:16, 24:20, 24:21, 25:1, 25:6, 25:11, 29:20, 30:1, 30:10, 31:15, 33:5, 33:6, 33:18, 34:5, 34:7, 34:17, 34:22, 42:3, 42:6, 42:17, 45:10, 45:13, 52:11, 54:3, 54:16, 61:19, 62:11, 119:2, 138:12, 142:10, 142:15, 145:20, 155:19, 157:1 politically 17:8 politics 29:17 poll 27:1 polling 21:9, 21:11, 22:17, 25:17, 27:22, 28:4 polls 27:3 population 51:21, 55:17, 69:13, 71:11, 77:7, 106:12, 108:9, 119:15 portion 35:20, 137:15, 140:19 pose 143:20 position 20:20, 28:16,</p>	<p>32:10, 100:6 positions 19:1, 32:21 posits 143:17 possibility 80:21, 81:9, 139:10 possible 99:11, 99:14, 134:5, 134:7 post 73:22 practical 58:8 practice 62:10 pre-litigation 39:16 pre-litigation-t- ype 39:15 preceding 102:22 precinct 46:21, 49:1, 49:3, 49:10, 49:11, 50:22, 51:7, 51:17, 52:3, 52:16, 54:10, 54:19, 55:7, 55:19, 56:18, 57:5, 57:17, 67:21, 68:7, 69:15, 91:18, 92:2, 114:8, 120:6, 120:9, 156:19 precinct-level 72:4 precincts 46:22, 47:5, 47:21, 49:1, 49:7, 49:14, 49:19, 49:21, 50:15, 50:19, 51:2, 51:5, 51:14, 52:19,</p>	<p>53:2, 53:14, 54:6, 55:13, 55:14, 55:15, 56:12, 57:18, 68:9, 71:10, 74:22, 120:13, 120:21, 121:1, 121:6, 157:6 prefer 54:7, 103:22, 109:4 preferences 46:15, 105:19, 117:22, 119:5 preferred 17:18, 77:6, 77:9, 104:16, 106:21, 109:5, 109:17, 109:18, 109:20, 112:18, 116:21, 118:1, 118:4, 118:13, 119:4, 148:13, 150:19, 151:2, 151:7, 151:14, 151:17, 152:2, 152:6, 152:14, 152:17, 152:22, 153:1, 153:3, 153:21 preparation 15:19, 65:9, 65:14 prepared 110:22, 133:16 preparing 64:22, 77:19 presence 87:9, 156:21 present 4:12, 31:16, 157:4 presentation 142:16 presented 82:20, 108:1 presently 9:17, 9:18</p>
---	--	--	--

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

186

<p>presidents 33:6, 33:17</p> <p>presume 73:9, 144:4, 154:7</p> <p>pretty 18:21</p> <p>prevail 82:11, 86:4, 90:12, 91:2, 92:11, 93:13, 100:16, 101:9, 102:5, 102:6, 110:3</p> <p>prevailed 82:9, 85:20, 90:5, 99:16, 99:18, 116:17</p> <p>prevent 70:18</p> <p>prevents 71:6</p> <p>previously 115:22</p> <p>primarily 27:19, 36:8</p> <p>primary 35:7, 58:2, 67:18, 143:14</p> <p>princess 75:11, 76:1, 90:21, 94:6, 97:2, 101:5, 113:21</p> <p>principal 54:5</p> <p>principle 54:2</p> <p>printed 13:11</p> <p>printout 127:17</p> <p>prior 12:9, 15:21, 60:18, 73:13, 141:19</p> <p>private 62:10</p>	<p>probability 26:18, 42:19</p> <p>probably 14:10, 58:2, 71:19, 105:13, 147:4</p> <p>probative 71:16, 71:18, 71:21, 71:22, 72:8, 72:19, 72:20, 73:18, 82:1, 84:6, 84:10, 84:20, 85:1, 85:3, 85:5, 85:9, 85:16, 87:6, 87:12, 87:13, 87:16, 90:3, 91:4, 92:5, 94:1, 94:13, 95:13, 96:6, 97:9, 97:10, 100:19, 101:11, 101:15, 101:16, 102:7, 105:18, 123:17</p> <p>probativeness 72:22</p> <p>problem 58:10, 60:9, 60:13, 61:3, 61:5, 61:6, 155:9, 155:14</p> <p>problems 143:20</p> <p>procedurally 125:13, 125:16, 126:3</p> <p>process 20:9, 25:1, 26:5, 26:6, 46:4, 46:6, 56:4, 59:7, 64:3, 64:19, 122:22, 125:11</p> <p>processes 46:16</p> <p>produced 48:19, 148:20</p>	<p>produces 59:12</p> <p>product 74:16</p> <p>profession 12:19, 45:12, 45:13, 48:4</p> <p>professional 2:12, 10:5, 10:6, 19:21, 36:22, 142:7, 145:5</p> <p>professor 13:16, 28:15, 30:14, 62:8, 154:13</p> <p>professorship 32:7, 32:13</p> <p>professorships 31:9</p> <p>profile 47:1</p> <p>program 23:2, 23:15, 23:16, 23:17, 24:8, 24:14</p> <p>programs 23:19</p> <p>progress 31:17</p> <p>project 22:16, 31:21, 34:18</p> <p>prompted 20:11, 26:2</p> <p>prong 6:2, 16:21</p> <p>proper 125:7</p> <p>prove 25:3, 108:12</p> <p>provide 16:13, 18:1, 32:22, 37:14, 39:11, 143:22, 146:9</p> <p>provided 22:3, 34:17,</p>	<p>37:17, 38:9, 46:17, 117:11</p> <p>providing 34:22</p> <p>provisional 75:16</p> <p>proxies 55:16</p> <p>public 2:13, 13:17, 20:2, 22:13, 22:19, 23:9, 28:16, 28:22, 29:5, 29:12, 29:14, 29:15, 32:15, 32:18, 32:19, 161:1, 161:21</p> <p>publication 142:7</p> <p>publicly 72:4</p> <p>publish 21:22</p> <p>published 21:19, 142:3, 154:5</p> <p>pull 87:16</p> <p>pure 23:18</p> <p>purely 141:3</p> <p>purple 140:14</p> <p>purpose 16:4, 21:14, 21:15, 25:20, 31:11, 73:1, 80:5</p> <p>purposes 13:2, 16:10, 17:11, 17:15, 17:20, 49:12, 49:13, 72:18, 74:1, 107:2</p> <p>pursuant 2:11</p>
--	---	---	---

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

187

<p>pushed 137:12, 137:20 pushes 137:20 put 12:12, 14:19, 42:12, 94:8, 105:9, 112:6, 149:6 putting 144:11, 150:4</p> <hr/> <p>Q</p> <p>qualifications 14:3, 14:9, 14:14, 34:11 quantitative 23:7 quentin 5:10, 111:4 question 11:16, 12:1, 35:5, 43:22, 45:16, 53:21, 121:16, 124:12, 135:5, 143:6, 151:3, 156:6 questions 11:11, 64:18 queuing 22:17, 25:13 quick 110:6 quickly 88:21, 114:4, 159:19, 159:21 quinn 33:4, 33:16, 33:19, 62:4, 62:10 quote 56:17, 155:4</p> <hr/> <p>R</p> <p>r-by-c 130:9 race 48:13, 75:11,</p>	<p>75:14, 75:15, 76:1, 76:9, 76:20, 77:22, 78:8, 78:11, 78:18, 79:13, 81:11, 81:13, 82:14, 83:13, 84:2, 84:22, 85:1, 85:3, 85:16, 85:18, 85:22, 87:5, 87:9, 87:20, 88:20, 90:3, 90:7, 90:21, 91:4, 92:5, 93:22, 94:12, 95:4, 95:5, 96:6, 96:18, 96:22, 97:3, 97:9, 97:10, 98:4, 98:5, 99:2, 99:3, 99:12, 99:16, 100:18, 101:2, 101:5, 101:12, 102:7, 102:9, 104:19, 105:14, 129:2, 129:7, 129:14, 133:2 races 48:16, 71:16, 72:2, 72:5, 73:4, 73:16, 75:10, 80:10, 81:2, 82:1, 84:6, 84:9, 84:10, 84:20, 85:3, 85:6, 87:8, 87:13, 87:15, 87:17, 90:3, 97:21, 98:2, 101:15, 112:15, 117:5, 117:10, 123:17, 126:10, 129:15, 131:1 racial 17:7, 17:17,</p>	<p>33:1, 133:2, 155:21, 156:3, 156:10, 156:18 racially 6:3, 15:1, 33:1, 35:5, 46:6, 46:18, 47:1, 60:10, 61:16, 119:19 raise 8:11, 105:10 ran 111:19 range 132:22, 134:5, 134:7, 134:8, 138:7, 139:6, 140:11, 140:19, 146:20, 147:11, 148:7, 150:9, 151:8, 151:11 ranges 132:20 rate 36:15, 138:20 rates 34:19, 36:19 ratio 81:21 reach 27:12, 58:17, 133:14 read 63:9, 102:15, 142:18 reading 161:8 really 53:9, 88:21, 105:8, 124:16, 135:17 realtime 2:13 reason 33:17, 40:13, 87:12, 128:20, 143:14 reasonable 42:1, 43:5,</p>	<p>157:9, 157:18, 158:8, 158:19 reasons 59:22 rebuttal 6:4, 10:18, 15:19, 37:6, 37:15, 67:10, 80:11, 81:6, 110:7, 110:20, 117:20, 118:21, 119:1, 123:20, 130:20, 132:20, 144:10, 153:17, 153:19 recall 27:13, 63:13, 92:17, 155:3, 155:7 received 9:5, 10:17, 10:18, 12:11, 15:5, 22:19, 27:9, 94:17, 95:15, 127:8 receiving 28:11, 127:7 recent 72:3, 72:19, 92:18 recess 64:14, 110:14, 149:19 recognized 135:16, 143:20 record 11:21, 41:11, 43:20, 64:12, 64:16, 66:11, 104:3, 110:13, 110:17, 149:17, 149:21, 150:1, 152:3, 159:14, 159:15, 160:10, 161:5 recruited 25:15 redistricted 92:21, 93:7</p>
---	---	--	--

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

188

redistricting 73:6, 73:8, 73:9, 92:19, 92:22, 93:3 reduced 161:7 refer 75:22, 113:12 reference 13:1, 38:22, 61:22, 121:11 referenced 13:7 references 37:1 referred 61:18 referring 112:21, 113:3, 113:14, 118:21, 155:3, 155:14 refers 133:1, 156:4 reflect 81:6, 104:3 reflected 81:20 reflection 11:20 regard 18:2, 67:6, 120:6, 123:17 regime 37:12, 40:11 region 138:22 registered 2:12 regression 47:4, 47:6, 55:4, 56:4, 56:9, 56:13, 56:17, 57:4, 57:7, 57:10, 57:20, 57:21, 57:22, 58:5, 58:6, 58:19, 59:3, 60:20,	67:22, 75:1, 91:17, 92:1, 100:2, 114:8, 116:11, 157:6 regular 145:10, 145:14, 159:16 regulating 24:19 reject 125:10, 127:1, 133:12, 138:19, 139:3, 141:10, 143:19, 144:5, 145:15, 151:10 rejecting 42:19, 139:8, 139:9, 145:13, 145:18 rejection 138:12, 138:20, 138:22, 139:6 related 161:10 relates 19:21, 54:15 relating 36:4 relation 68:3 relationship 46:2, 48:15, 58:21, 59:2, 60:22, 68:4, 68:8 relatively 11:6 relevant 15:7, 20:5, 42:6 reliability 38:9, 42:14, 42:17, 53:19, 57:7 reliable 31:18, 42:9, 43:19, 45:9, 45:11, 49:7,	55:16, 69:7, 70:18, 108:5, 117:13, 138:1 reliably 63:8, 69:21, 70:10 reliance 58:6 relied 52:2, 52:7, 52:13, 65:5, 65:8, 119:18, 120:9 rely 43:17, 45:14, 46:8, 47:16, 47:18, 74:10, 74:13, 74:19 relying 52:19, 104:7, 104:12 remains 100:6, 140:14, 140:15 remember 51:6, 63:10, 75:19, 127:19 remove 90:2, 90:4, 96:1 removed 94:13 reon 51:20 rephrase 11:17, 16:1, 18:8, 41:1, 50:7, 69:18, 83:6, 141:2, 158:7 replaced 122:14 report 5:8, 5:9, 6:4, 10:16, 10:18, 12:10, 14:5, 15:19, 15:20, 16:5, 18:21,	21:18, 22:7, 34:10, 37:17, 41:13, 43:2, 49:12, 49:13, 51:10, 51:17, 51:18, 57:3, 58:4, 59:18, 60:5, 63:19, 64:1, 64:20, 64:22, 65:4, 65:10, 65:14, 66:2, 67:7, 67:10, 68:5, 70:21, 72:1, 75:7, 75:20, 78:14, 80:11, 81:6, 84:10, 84:15, 85:9, 89:11, 96:8, 106:3, 108:2, 108:17, 110:7, 110:20, 110:22, 111:4, 112:11, 113:4, 113:5, 113:12, 117:3, 117:9, 117:11, 117:20, 118:21, 119:1, 119:8, 119:17, 123:13, 123:20, 124:2, 124:13, 125:18, 126:2, 130:13, 130:14, 130:21, 131:4, 132:20, 135:6, 144:11, 153:11, 153:14, 153:17, 153:20, 155:1, 158:3 reported 1:22, 122:4 reporter 2:12, 2:13, 8:6, 8:9, 8:11, 11:12, 12:3, 33:8, 33:11, 43:20, 66:11, 103:18, 141:16, 152:3, 159:16,
--	--	---	---

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

189

159:19, 160:1, 160:3, 160:7, 161:1 reports 9:5, 10:21, 63:9, 63:14, 77:10, 124:8 represent 7:17, 9:1, 13:10, 14:6, 17:5, 47:4 representation 17:19, 17:21, 133:22 representative 140:8 represented 137:7, 144:13 representing 7:13, 8:7 represents 59:15, 77:21, 79:8, 81:21, 140:11 reproduced 103:1 requested 161:9 requiring 91:9, 109:21 research 26:12, 31:15, 34:15, 34:17, 34:22, 42:3, 65:16, 142:7, 143:6 reserve 96:10, 116:13 reside 9:17, 9:18 residence 10:1, 93:5 residential 155:22, 156:13 resolution 75:16, 75:20 resolved 38:3, 39:19,	39:21 resolves 104:11 respect 12:15, 15:17, 19:4, 43:4, 64:19, 67:9, 93:5, 119:14 respond 11:11 responded 20:17 responding 111:3, 145:10 response 5:9, 35:4, 66:14, 111:3, 112:10, 125:21, 127:7, 143:12, 146:1, 154:1 restate 153:7 result 22:1, 48:17, 105:2, 152:1 resulting 52:21 results 53:3, 85:11, 91:14 retained 39:11, 40:1, 40:4, 40:22, 41:3, 41:8 retention 39:15 retired 62:9 return 34:19 returning 18:16 returns 121:2 review 12:14, 16:7, 16:10, 21:20, 142:4, 155:17	reviewed 63:15, 76:8 reviewing 21:17 ridiculous 127:3, 146:5 ridiculously 146:5 right 8:11, 22:5, 26:4, 28:6, 36:10, 55:2, 63:16, 83:14, 96:10, 103:2, 116:13, 129:18, 136:12, 148:19, 150:12 rights 35:17, 35:19, 36:8, 38:11, 39:2, 39:3, 40:9, 40:19, 40:22, 41:2, 41:7, 60:11, 61:17, 61:20, 62:19, 145:2, 145:7, 145:9, 154:8 rising 155:17 robert 35:15, 36:6, 62:4, 62:8 role 37:13, 37:14 rose 86:16, 90:7, 113:19 ross-hammond 86:1, 92:7, 113:17, 115:12, 115:16, 128:17, 129:4, 129:21 rouse 5:18, 5:22, 82:17, 82:22, 84:1, 84:13, 113:16, 128:16,	129:18, 133:5, 133:8, 135:7, 137:6 row 78:2, 103:2, 126:9 rpr 1:22 rubin 35:15, 62:5 rudee 52:9 rules 11:9 run 59:17, 59:19, 128:6 running 72:7, 72:10 résumé 37:2 <hr/> S <hr/> sabrina 76:18, 77:2 said 40:18, 50:12, 83:4, 95:12, 161:6 same 18:22, 23:20, 44:10, 44:15, 54:11, 68:3, 78:22, 103:11, 106:20, 107:5, 107:6, 108:8, 108:22, 109:1, 109:19, 118:13, 118:14, 125:3, 125:5, 126:10, 130:18, 131:2, 142:2, 143:2, 143:14, 143:18, 144:2, 144:11 san 36:7 save 18:11
--	--	---	---

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

190

<p>saves 149:7</p> <p>saw 66:8</p> <p>say 27:19, 44:6, 44:18, 55:22, 58:4, 58:19, 60:8, 60:19, 70:7, 71:18, 72:15, 78:3, 105:11, 105:13, 109:20, 112:15, 112:22, 118:15, 120:2, 123:4, 125:8, 128:20, 135:10, 150:17</p> <p>saying 53:22, 79:3, 111:10, 114:14, 114:15, 131:11, 139:10</p> <p>says 37:5, 84:11, 124:20, 134:12, 143:3, 144:3</p> <p>scatter 47:7, 47:15, 47:17, 47:18, 53:10, 56:1, 56:10, 56:15, 59:11</p> <p>scholar 31:10, 33:19</p> <p>school 13:17, 20:1, 23:2, 23:11, 23:13, 23:18, 28:22, 29:8, 32:14, 35:14, 154:6</p> <p>science 19:12, 19:13, 20:8, 22:16, 23:11, 24:16, 24:20, 24:21, 25:6, 25:11, 29:20, 30:2,</p>	<p>31:15, 34:5, 34:8, 34:17, 34:22, 42:3, 42:7, 42:18, 45:10, 45:13, 52:11, 54:3, 54:16, 61:19, 62:11, 138:12, 142:10, 142:15, 145:20</p> <p>sciences 29:2</p> <p>scientific 41:22, 42:1, 43:6, 59:7, 157:10, 157:18, 158:9, 158:20, 159:5</p> <p>scientist 15:10, 22:11, 30:10</p> <p>scope 15:17, 15:18, 15:20, 18:5, 32:12</p> <p>se 131:8, 131:9, 131:10, 133:20, 148:4</p> <p>seal 161:14</p> <p>seat 80:17, 82:2, 105:5, 111:9, 128:6</p> <p>seats 81:7, 82:2, 88:6, 121:22, 122:2, 122:13</p> <p>seattle 142:1</p> <p>second 11:15, 47:2, 47:3, 51:15, 77:13, 80:1, 88:20, 88:22, 99:5, 101:1, 112:13, 120:5,</p>	<p>130:19</p> <p>second-highest 88:5</p> <p>secretary 37:6</p> <p>section 32:18, 111:6, 154:7, 155:18</p> <p>sections 32:16, 32:17</p> <p>secured 21:12</p> <p>see 10:10, 16:6, 24:2, 26:2, 31:2, 34:10, 36:22, 40:17, 57:13, 73:1, 91:20, 124:21, 128:21, 130:1, 133:10, 137:8, 144:5</p> <p>seeing 59:5, 112:18</p> <p>seeking 25:3</p> <p>seem 94:22, 108:7</p> <p>seen 27:11, 52:15, 61:18, 142:9, 142:16, 145:1</p> <p>seminar 29:10</p> <p>senate 18:2</p> <p>sense 134:10</p> <p>sentence 58:9, 60:19</p> <p>separate 32:20, 66:4, 117:6</p> <p>separately 68:2, 103:16, 108:3, 143:4</p> <p>sequence 19:22</p>	<p>sequentially 22:9, 23:21</p> <p>series 19:4, 23:8, 24:21</p> <p>served 36:6</p> <p>service 21:21, 27:15</p> <p>serving 37:1, 39:1</p> <p>sessoms 85:17</p> <p>set 23:6, 26:15, 106:18, 143:5, 161:13</p> <p>sets 31:19</p> <p>setting 142:21, 142:22</p> <p>seven 93:5, 112:19, 152:13, 153:1, 153:18, 153:20, 154:3</p> <p>several 29:18, 30:5, 85:8</p> <p>shapefiles 120:9, 120:15, 120:19</p> <p>share 117:21</p> <p>shared 119:6</p> <p>shelby 154:9</p> <p>sherrod 93:12, 113:19, 115:10</p> <p>shift 12:4</p> <p>shop 52:8</p> <p>short 74:17</p> <p>shorthand 16:9, 35:10,</p>
---	--	---	---

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

191

161:1 should 25:7, 31:5, 72:13, 80:18, 89:10, 105:9, 108:7, 155:8 show 10:12, 12:8, 78:21, 87:10, 133:15, 146:7, 155:5 showing 134:5 shows 35:1, 58:15, 78:1, 79:10, 158:13 signature-8g8ru 161:17 signed 40:14 significant 35:20, 43:7, 60:2, 96:13, 137:15, 155:22, 156:12 significantly 42:11, 59:6, 86:11, 93:21, 124:19 signing 161:9 similar 48:22, 49:3, 49:6, 97:8, 114:13, 130:17 similarly 17:10, 53:1 simplicity 57:11 simply 37:14, 144:9 since 15:6 single 104:18, 105:5 sir 9:7, 10:8,	12:5, 13:7, 64:10, 104:9, 127:12 site 72:5 situation 105:10 six 29:8, 41:16, 84:2, 112:19, 130:3, 152:9 sixteen 111:8 size 46:1, 69:13, 71:11, 108:4, 136:9 slope 58:14 sloped 59:6 slow 33:8 small 69:13, 70:16, 70:17, 71:3, 108:4, 126:12, 140:20 smaller 52:22, 53:3, 146:4 social 24:5, 24:8, 24:14, 28:12 society 33:6, 33:18 sociological 26:12 sociology 26:9 solely 110:2 some 11:19, 15:3, 16:17, 16:18, 20:2, 27:10, 29:4, 30:6, 31:17, 34:20,	47:22, 58:7, 59:17, 75:16, 83:12, 104:4, 125:21, 127:6, 157:4, 157:7 somebody 144:1 someone 38:14 something 65:1, 70:12, 93:4, 135:21, 136:15, 138:19, 140:17, 143:7, 143:8, 146:17, 150:12, 150:14 something's 148:19 somewhere 25:16, 133:9, 147:4, 149:1, 150:8 sorry 20:16, 41:22, 57:14, 70:3, 70:8, 70:12, 71:14, 73:5, 73:16, 74:5, 74:6, 75:10, 76:9, 76:12, 82:7, 86:17, 89:21, 89:22, 103:20, 104:1, 121:15, 129:15, 130:12, 132:18, 135:14, 141:1, 144:18, 153:8, 156:5, 157:12 source 65:2, 119:14 sources 27:5, 65:3, 65:5, 69:22 south 10:2 space 31:14, 49:2, 68:10	speak 11:20, 42:2, 49:9, 63:8, 66:1, 66:16, 138:6, 156:16 special 82:21, 83:4, 92:16, 93:11, 113:19 specific 34:12, 76:12, 138:16 specifically 33:15, 34:6, 35:9, 35:21, 36:3, 117:4, 133:18 spencer 1:13, 2:2, 5:2, 5:7, 7:2, 7:7, 8:14, 8:20, 9:12, 13:3, 13:21, 64:18, 110:12, 110:17, 110:19, 128:1, 136:3, 140:4, 144:20, 149:14, 159:13 spencer's 5:16, 5:20, 6:2 spend 64:22 spent 20:3, 35:20 spoke 66:20 spot 88:17 spots 71:4, 88:13, 88:14 spring 32:3 stable 120:22 stand 25:17, 64:11, 110:10, 149:16,
---	--	---	--

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

192

154:22, 159:11 standard 43:16, 44:10, 44:14, 61:12, 61:15, 62:1, 95:16, 95:20, 100:7, 131:10, 131:12, 131:13, 131:16, 131:17, 132:5, 132:9, 132:10, 133:3, 133:7, 134:9, 138:14, 147:5, 150:13 standard-of-error 135:2 start 43:22, 125:13 started 10:11, 10:12, 22:14, 32:2, 56:6, 87:14 starting 72:7, 85:5 state 7:17, 37:7, 40:10, 93:3, 129:8, 157:9, 157:17, 158:8 state's 37:12 statement 14:9, 14:13, 116:20, 119:3, 155:16 statement's 118:7 states 1:1, 7:9, 21:16, 29:22, 34:18, 63:1 stating 158:19 station 21:9, 27:16, 27:22 stations 22:18	statistical 23:7, 33:20, 47:12, 48:11, 107:1, 138:11, 155:9, 155:18, 156:22 statistically 42:10, 43:7, 43:10, 43:12, 43:14, 59:5, 59:13, 59:21, 60:2, 86:11, 96:13, 104:20, 116:14 statistics 15:5, 34:13, 62:14, 75:2, 149:8 status 97:14, 113:4 stay 43:1 steep 58:14 stenographically 161:7 step 139:17 stepping 26:18 steps 56:9 sticks 84:3 still 32:10, 39:18, 62:6, 117:17 stop 58:12 straight 20:1, 42:21, 147:18 street 2:5, 3:5, 3:12, 7:15, 10:7 strengths 55:6, 55:7, 57:9, 57:15	strong 105:15, 157:22 stuck 83:18 students 25:17, 29:10, 30:11, 32:19 studied 83:9, 83:17 study 19:12, 23:5, 25:12, 25:14, 25:20, 27:12, 27:14, 28:1, 35:14, 141:22 studying 26:8 subheadings 130:4 submitted 75:20, 158:4 substance 65:11, 65:22 substantively 130:16 successful 101:1 sufficient 69:19, 70:7, 70:15, 118:1, 118:4, 118:6 sufficiently 17:16 suggest 59:14, 96:17, 96:20 suggests 145:6 suite 3:6, 3:13 suits 64:8, 64:9 sum 80:18 summarized 75:2 summary 16:4, 16:16,	38:4, 38:6, 41:17, 98:18, 98:19, 111:6 support 68:14, 68:18, 68:22, 69:4, 78:22, 83:17, 83:18, 83:20, 85:10, 86:10, 86:12, 86:15, 87:11, 87:22, 88:6, 90:19, 90:20, 91:11, 91:21, 93:19, 93:20, 95:3, 97:7, 99:8, 103:5, 104:21, 105:15, 106:21, 107:10, 107:11, 108:2, 108:3, 108:9, 114:9, 114:11, 116:14, 116:22, 117:7, 117:22, 118:3, 118:5, 118:9, 119:8, 126:18, 128:18, 128:19, 132:1, 133:5, 133:8, 133:13, 133:18, 134:8, 135:12, 137:6, 146:8, 148:1 support's 104:22 supported 84:1 supporting 52:12, 107:5 supports 79:11, 118:12 suppose 59:16 supposed 103:19 supreme 32:18, 63:1 sure 10:15, 25:14,
---	--	---	---

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

193

46:13, 51:9, 64:8, 71:1, 89:19, 103:10, 108:4, 127:8, 134:3, 144:14, 150:11 surplusage 100:11 survey 29:14, 29:16, 30:1, 31:18, 74:11, 120:3 surveys 31:18 swear 8:9 switch 55:3 sworn 8:15 systems 120:14	27:20, 64:6, 110:2, 110:6, 112:6, 146:16 takeaway 150:12 taken 64:14, 73:18, 73:19, 93:4, 110:14, 114:7, 149:19, 161:3, 161:6 takes 132:17, 133:16 taking 7:14, 23:22, 24:3, 24:4, 144:10 talk 29:16, 29:17, 29:18, 35:8, 117:18, 146:13 talked 121:13 talker 33:13 talking 35:21, 89:20, 103:11, 109:7 taught 15:4, 29:8, 29:19, 30:3, 30:22, 32:16 teach 29:7, 29:13, 31:1 teaching 31:14 technically 131:16 techniques 155:19, 157:1 technology 27:17 tell 9:10, 21:4, 31:8, 35:12, 46:4, 53:6, 56:6, 61:21,	62:16, 77:18, 83:12, 102:9, 107:8, 108:18, 112:5, 121:8, 121:9, 124:10, 141:5, 141:18 ten 54:6, 112:2, 112:5, 112:9, 112:15, 112:19, 112:22, 113:7, 113:13, 113:15, 114:2, 114:18, 117:5, 117:10, 153:15, 153:16 tend 17:9, 155:20 term 44:12, 48:4, 48:7, 54:18, 71:19 terms 53:19, 54:15, 77:8, 77:19, 109:11, 132:12, 152:21 terrible 43:21 test 5:17, 5:21, 51:12, 116:13, 124:20, 141:22, 143:3, 145:12, 145:21, 146:2 testified 8:17, 61:1, 157:9, 157:17 testify 8:15, 37:22 testifying 36:17, 39:7, 41:4, 41:8 testimony 15:18, 17:1, 17:2, 18:6, 36:13, 36:20, 39:11, 161:5, 161:6	testing 42:22, 63:22, 124:5, 124:8, 124:10, 124:18, 132:21, 134:1, 134:8, 138:7, 138:16, 140:12, 141:19, 142:6, 142:9, 143:10, 143:12, 143:16, 144:7, 145:2, 145:7, 145:9, 146:8, 150:18, 151:20, 153:2 testing's 137:10 tests 59:17 text 30:3 th 3:12, 12:11, 15:21, 41:20, 63:20, 64:4, 111:1 thailand 20:6, 20:12 thank 10:4, 11:1, 12:7, 14:20, 17:22, 24:9, 32:5, 33:11, 64:9, 71:13, 104:2, 112:8, 127:13, 141:13, 150:4, 159:7, 159:9, 159:10 themselves 7:17, 21:10, 48:16 theoretical 34:14 theories 25:7 thereafter 161:7 therefore 50:18
T			
table 78:20, 80:6, 80:7, 83:22, 94:22, 102:19, 112:20, 113:16, 114:21, 123:21, 124:4, 124:7, 125:12, 125:16, 125:19, 127:5, 127:7, 132:22, 152:9, 152:12, 152:15, 152:18, 153:19, 153:21 tables 78:2, 78:3, 78:5 tabulation 120:7, 120:21, 121:3, 121:5 tag 4:13, 7:13 take 10:14, 11:12, 18:20, 20:2,			

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

194

<p>thesis 25:2, 25:4 thick 18:21 thing 27:20, 108:22, 109:1, 137:3, 143:2, 150:21 things 11:2, 21:12, 27:15, 33:3, 35:13, 36:2, 72:17, 83:12 think 14:6, 14:15, 15:7, 17:21, 18:14, 18:21, 21:20, 28:7, 35:1, 35:16, 36:10, 39:16, 39:20, 42:6, 43:2, 50:11, 51:6, 52:14, 56:6, 62:9, 63:16, 65:1, 66:15, 74:21, 76:18, 79:7, 80:10, 92:21, 99:19, 101:21, 103:18, 105:11, 109:10, 111:10, 118:7, 125:16, 125:18, 128:11, 129:7, 133:20, 141:20, 144:8, 146:10, 149:4, 159:4 third 11:18, 60:9, 129:2 threat 155:18 three 23:18, 25:18, 32:15, 32:16, 43:2, 46:17, 63:18, 68:11, 68:16, 68:21,</p>	<p>69:3, 69:14, 69:16, 69:22, 70:3, 70:20, 71:9, 72:18, 76:11, 80:20, 82:1, 82:4, 82:8, 83:19, 84:9, 87:17, 91:9, 91:12, 91:13, 94:4, 100:5, 100:11, 103:3, 106:4, 109:7, 109:10, 109:15, 109:18, 109:22, 111:11, 111:12, 111:19, 111:21, 112:18, 114:7, 115:19, 115:21, 117:14, 130:2, 130:3, 150:19 three-year 23:15, 23:16, 24:4, 31:3 threshold 52:15, 86:13, 109:21, 128:7, 128:9, 128:10, 128:11, 128:22, 129:5, 129:8, 133:12, 133:14, 137:13, 137:14, 137:16, 137:21, 138:3, 138:8, 138:12, 139:4, 139:14, 140:14, 140:20, 141:7, 141:8, 141:10, 145:16, 146:3, 146:4, 148:9, 151:12, 159:6 thresholds 129:10 through 11:9, 13:11, 46:9, 47:6, 56:13, 59:4, 59:20, 70:6,</p>	<p>120:8, 120:20, 146:13 throwing 55:21 time 7:12, 10:14, 11:4, 19:22, 20:2, 21:2, 23:20, 28:18, 30:21, 30:22, 36:16, 64:12, 64:16, 70:6, 70:8, 72:16, 81:8, 83:16, 120:22, 131:2, 149:7, 149:17, 149:21 time-of-day 28:2, 28:3 times 39:22, 83:19, 85:8, 111:19, 131:16, 131:17, 133:3, 133:6, 142:16 timing 72:21 title 24:19, 154:14 today 7:13, 8:7, 13:20, 15:18, 17:15, 18:6, 27:13, 114:3, 150:17, 157:9, 157:17 today's 7:11 together 14:10, 30:15, 53:10, 53:13, 103:17, 107:16, 108:16, 112:6, 117:12, 149:6 tomorrow 160:1 took 19:13, 22:15,</p>	<p>23:10, 35:15, 71:13, 150:6 tool 47:13 top 18:22, 51:7, 62:3, 62:20, 63:3, 63:17, 72:13, 79:16, 142:13 total 48:14, 51:21, 80:18, 81:13, 81:17, 103:15, 105:21, 122:10, 128:13, 129:6, 129:13, 129:16, 129:22, 152:13 totality-of-the-- circumstances 18:3 totally 79:6, 138:4 totals 48:15, 51:7, 56:11, 67:19, 67:20, 93:17, 95:22, 96:14, 104:7, 121:12, 122:10, 123:2 trade-offs 46:16 traditional 130:15, 143:16, 144:6 trained 20:18 training 15:3, 15:4, 21:1, 21:4, 21:5, 22:14, 23:7, 23:9, 27:9, 33:15, 34:12 transcript 5:6, 7:4, 11:14, 13:4, 13:22, 128:2,</p>
--	--	---	---

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

195

136:4, 140:5, 144:21, 149:15, 160:8, 161:4 transitioning 110:7 translates 132:12 transparency 21:18 treatment 142:1, 142:20, 142:22, 143:4, 143:5, 143:18 trial 37:22, 38:5 tried 26:16 true 10:15, 161:5 truth 8:16, 8:17 try 25:21, 83:6, 117:13, 125:22, 143:19 trying 11:8, 25:5, 42:5, 42:9, 43:1, 51:10, 60:18, 70:12, 124:15, 134:17, 147:3, 155:11 tuesday 1:15, 7:11 turn 41:13, 60:9, 110:19 turning 84:17, 86:16, 86:18, 92:4, 92:15, 94:3, 101:14, 123:19 twice 132:14, 135:18, 139:7 two 9:5, 10:13, 10:21, 12:9,	14:2, 14:12, 20:3, 31:9, 32:15, 32:17, 37:1, 39:22, 40:8, 42:8, 42:10, 45:20, 45:21, 54:15, 56:9, 76:16, 77:19, 80:15, 80:18, 81:1, 81:7, 81:10, 81:19, 82:1, 82:7, 84:20, 88:6, 88:13, 88:14, 88:17, 88:19, 95:5, 98:13, 99:6, 99:20, 101:16, 102:10, 103:2, 105:7, 105:13, 112:18, 122:2, 122:13, 126:6, 129:1, 130:16, 131:15, 133:6, 138:14, 143:11, 144:2, 150:15, 155:21, 156:2, 156:9 two-candidate 129:7 type 81:14, 82:20 typewriting 161:8 typing 13:12 typo 76:3, 76:7, 102:18, 135:15, 135:16 <hr/> U <hr/> uc 154:13 uconn 13:17 uh-huh 11:13, 77:14,	84:19, 93:19, 97:1 ultimately 23:12, 87:5 unclear 11:16 under 10:17, 10:18, 22:2, 68:11, 68:16, 68:21, 69:2, 70:19, 71:8, 79:20, 85:3, 88:11, 88:20, 89:12, 90:21, 91:8, 95:16, 95:19, 97:5, 97:10, 103:13, 117:14, 132:21, 142:4, 150:17, 150:21, 151:19, 152:2, 152:8, 153:2, 153:4, 153:14, 153:17, 161:8 undergraduate 25:17, 29:19 underlying 47:19, 55:17, 58:20, 59:2, 60:21 understand 9:3, 14:9, 17:6, 21:13, 38:4, 39:17, 42:22, 44:19, 45:3, 50:8, 53:21, 61:1, 78:7, 78:17, 82:16, 87:4, 90:2, 107:8, 121:19, 134:17, 135:7, 136:14 understanding 18:17, 74:15, 79:7, 119:16, 137:9 understood 31:7, 34:3,	154:2 unified 25:10 uniform 25:9 uninitiated 48:9 unintelligible 11:14 unique 105:10 united 1:1, 7:8, 29:22, 63:1 university 10:9, 19:8, 19:12, 22:20, 28:14, 28:19, 30:17, 32:7, 62:12, 62:13, 154:6 unknown 105:8 unless 103:22 unquote 56:17 unreliable 155:4 until 58:13 updated 81:4 use 33:20, 49:17, 63:2, 63:7, 63:9, 77:8, 107:5, 108:7, 109:14, 118:20, 118:22, 126:7, 130:19, 131:3, 135:22, 141:21, 142:5, 145:6, 145:8, 146:6, 147:8, 153:22 useful 144:8 uses 47:20, 48:5,
--	--	---	--

Transcript of Douglas Spencer, Ph.D.

Conducted on October 1, 2019

196

133:20 using 43:8, 47:14, 55:20, 69:22, 72:18, 100:10, 106:4, 124:4, 124:7, 124:9, 126:4, 133:17, 134:8, 135:7, 138:9, 142:21, 151:15 usually 17:17, 33:13, 54:1, 142:19 utilized 63:19 utilizes 57:16	viewpoint 44:8 views 27:10 vir 57:2 virginia 1:2, 1:7, 4:6, 4:8, 7:8, 7:10, 15:2, 50:6, 50:16, 50:20, 51:5, 57:2, 60:4, 60:14, 60:15, 61:2, 61:16, 66:7, 69:4, 69:21, 70:17, 70:19, 71:8, 72:11, 73:6, 73:12, 75:3, 93:6, 93:10, 111:9, 120:12, 120:13, 120:16, 120:19, 121:2, 121:4, 121:9, 122:4, 122:5, 129:19, 156:8, 156:13, 157:12, 157:20, 158:10, 158:11, 158:22 visibly 27:3 visit 31:13, 32:14 visiting 31:9, 31:10, 32:6, 32:13 visual 133:22 vitae 14:4 voice 7:16 voices 12:4, 70:14 vote 17:9, 17:16, 48:14, 48:15,	56:11, 67:19, 67:20, 80:16, 80:17, 90:19, 93:17, 94:18, 95:16, 95:22, 96:14, 98:19, 103:15, 104:7, 105:22, 121:11, 122:10, 123:2, 128:13, 129:6, 129:16, 129:19, 129:22 voted 81:1, 81:10, 122:13, 122:18 voter 108:11, 120:7, 120:20, 121:3, 121:5 voters 27:21, 67:19, 67:20, 69:20, 70:16, 70:19, 71:8, 79:9, 79:11, 79:17, 80:22, 81:9, 86:10, 86:12, 86:15, 91:21, 104:16, 105:16, 105:19, 106:5, 106:7, 106:10, 106:14, 108:19, 109:4, 112:17, 113:2, 114:16, 115:20, 116:20, 117:4, 117:9, 117:12, 117:15, 119:3, 157:11, 157:13, 157:19, 158:2, 158:3, 158:9, 158:11, 158:21 votes 81:13, 81:17, 81:18, 98:12, 98:20, 122:7, 122:15, 129:11, 134:5, 158:15	voting 6:3, 15:2, 27:16, 27:17, 33:2, 34:8, 34:20, 34:21, 35:6, 35:19, 36:8, 38:11, 39:2, 40:9, 40:19, 40:22, 41:2, 41:7, 46:7, 46:15, 46:18, 46:21, 48:12, 48:13, 55:12, 55:17, 60:11, 61:16, 61:17, 61:20, 62:19, 68:7, 80:17, 80:22, 81:9, 84:2, 86:7, 90:14, 93:15, 105:2, 105:18, 105:20, 106:12, 108:13, 108:15, 108:16, 114:19, 117:19, 119:5, 119:15, 119:19, 145:2, 145:7, 145:9, 154:8, 155:20, 157:2, 158:2, 158:14, 158:17 vouchers 141:22 vra 154:7, 155:10 vtlds 120:8
<hr/> V <hr/>			<hr/> W <hr/>
various 68:14, 75:10, 91:8, 107:19 vast 141:5 verbally 11:11 versus 7:7, 11:13, 52:16, 73:13, 118:16 victories 82:22 video 7:12, 159:15 videographer 4:13, 7:5, 7:13, 8:6, 64:11, 64:15, 110:10, 110:15, 149:16, 149:20, 159:11 videotaped 1:12, 2:1, 7:6, 110:12, 110:16, 159:12 view 44:7, 88:4			walk 70:6 want 10:14, 46:10, 50:9, 64:6, 96:14, 103:10, 116:12, 123:4, 134:16, 136:13, 143:3, 146:13,

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

197

160:1 wanted 119:21 washington 1:14, 2:6, 3:14, 7:15 way 14:14, 46:14, 53:17, 54:21, 59:13, 61:19, 68:2, 81:8, 100:9, 106:19, 106:20, 108:5, 108:16, 121:18, 123:3, 124:18, 128:10, 131:11, 135:15, 144:6, 145:19 ways 29:15, 46:17, 59:16, 143:11, 157:7 we'll 9:9, 11:20, 35:9, 113:9, 141:14, 144:3 we're 10:11, 18:21, 28:8, 42:7, 58:1, 103:11, 108:4, 113:13, 134:17, 135:7, 136:14, 147:3, 159:7 we've 12:9, 28:7, 133:15, 145:19 weakness 58:3, 58:17 weaknesses 55:18, 57:19, 57:21, 57:22 webpage 5:13, 13:16 weeks 40:8 weight 91:16, 91:19	welcome 51:9, 134:15, 134:21 went 20:18, 22:7, 23:12 whatever 93:2 whereof 161:13 whereupon 8:13 wherever 58:11, 147:16 whether 17:7, 17:15, 21:11, 25:6, 27:9, 36:16, 52:15, 59:1, 59:8, 73:2, 82:20, 83:11, 87:21, 100:8, 105:19, 107:9, 109:13, 116:13, 117:8, 124:22, 133:10, 142:1 white 52:7, 67:19, 68:6, 82:12, 82:15, 83:17, 83:20, 86:7, 86:10, 86:12, 86:15, 90:14, 90:19, 90:20, 93:15, 93:18, 93:19, 105:2, 105:17, 105:20, 114:19, 115:19, 116:1, 152:10, 155:20, 157:2 whole 8:16, 25:10, 94:19, 137:2 williams 37:8 win 86:14, 111:8, 114:21, 116:22,	119:4, 129:12 winner 128:19 winning 86:14, 90:19, 93:21, 128:14, 129:13, 158:15 within 19:4, 23:2, 130:17 without 65:22, 158:14 witness 5:11, 8:10, 9:4, 12:11, 13:6, 33:10, 37:2, 37:5, 39:1, 39:6, 40:2, 40:5, 41:15, 66:21, 70:5, 71:1, 74:5, 83:3, 88:3, 88:17, 94:21, 103:20, 107:22, 110:9, 135:4, 153:7, 155:7, 156:16, 157:22, 159:3, 159:10, 161:13 won 128:16, 129:9, 129:20, 152:16, 152:18 wood 142:18 wooten 76:18, 77:2, 80:2, 82:17, 82:22, 83:15, 84:13, 113:17, 128:16, 128:22, 129:2 wooten's 79:13 word 109:14, 118:20, 118:22 words 14:22	work 12:5, 17:12, 17:20, 20:4, 31:18, 32:22, 34:21, 39:4, 65:17, 65:20, 134:17, 141:19, 142:18, 149:13 worked 34:6 workers 27:1 working 27:3, 27:9, 31:17, 36:7, 36:17, 107:16, 141:20, 150:2 works 12:6, 31:16 workshop 31:16, 34:15 world 142:10 worth 99:19 wouldn't 127:3, 151:10 wray 76:18, 129:2 write 24:17, 103:19, 154:15 writing 37:16, 78:19, 135:16, 155:8 written 37:17, 65:2, 65:5, 155:1 wrong 78:15, 123:3, 123:4, 145:22, 148:20 wrote 67:15, 135:15 <hr/> x <hr/> x's 127:16
---	---	--	---

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

198

Y	yourself	11	19
y	15:9, 15:12,	64:16, 75:6,	72:15, 97:3,
151:2, 152:1	15:15, 30:13,	77:12, 80:7,	111:22, 160:10
y's	66:2	80:8, 110:13	19.9
152:1	Z	11.6	148:7
yale	zero	132:1	1st
31:10	134:4, 139:5	110	7:11
yeah	\$	58:18	2
14:17, 17:13,	\$250	1101	20
18:19, 24:7,	36:15	3:12	45:8, 71:12,
26:13, 27:14,	0	12	104:4, 126:20,
28:9, 30:14,	00069	83:15, 110:17,	127:2, 133:9,
32:4, 47:9,	1:7, 7:10	149:18	133:11, 146:17
50:10, 51:11,	02	120	20.9
54:4, 54:9,	7:12	25:16	135:13, 135:18
66:4, 70:9,	03	128	200
73:14, 79:15,	1:16, 64:16	5:14	80:19
83:7, 112:20,	05	13	20005
135:21, 139:17,	110:17	5:11, 5:13	2:6, 3:14, 7:15
149:4, 150:14,	06105	136	2004
150:21, 154:13,	10:7	5:15	19:9, 19:20
156:7, 159:8	08	14	2008
year	149:21	3:12, 78:4,	22:13, 22:21,
31:1, 31:5,	1	78:5, 79:13,	24:5, 72:3,
31:6, 31:22,	149:21, 159:14,	79:14, 148:5,	72:12, 98:3,
32:1, 74:11,	160:10	161:16	101:14, 104:15,
128:5, 128:16	1.96	140	111:7, 113:21,
years	44:14, 131:16,	5:19	113:22, 120:20
20:3, 23:18,	133:3, 147:6	1411	2009
29:9	10	2:5, 7:15	24:7
yellow	1:16, 7:12,	144	2010
137:7	10:3, 64:13,	6:2	73:10, 73:15,
yep	138:9, 139:6,	149	73:22, 74:20,
9:12, 12:6,	141:9, 145:14,	6:5	94:3, 95:12,
13:8, 16:6,	147:11, 147:13,	15	96:22, 97:16,
71:20, 97:4,	147:14, 147:15,	12:11, 15:21,	97:17, 98:5,
102:12, 134:19,	147:17, 147:18,	41:20, 63:20,	98:9, 100:19,
136:20, 137:8,	147:19	64:4, 71:12	113:20, 116:6,
137:19, 140:10,	100	16	122:1, 122:21,
148:3, 148:6,	58:7, 65:20,	78:6, 84:18,	123:1, 123:7,
149:2	80:19, 120:16	85:2	123:10, 131:22
yeses	105	161	2011
112:19, 152:5,	58:17	1:21	24:6, 92:15,
152:13, 152:16,		17	93:10, 113:19
153:2		132:15	2012
yield		18	92:4, 92:5,
123:12		1:7, 7:10,	113:18, 115:12
		159:14	

Transcript of Douglas Spencer, Ph.D.
Conducted on October 1, 2019

199

<p>2013 28:7, 28:18 2014 86:16, 86:18, 90:22, 97:2, 98:16, 113:18, 116:4, 120:20, 121:13, 121:22, 122:9, 123:5, 123:9, 123:11 2015 39:3 2016 84:17, 84:21, 113:18, 115:16, 120:12, 120:22, 129:5 2017 28:19 2018 37:8, 72:12, 75:11, 75:15, 76:12, 80:9, 81:22, 82:5, 82:20, 83:8, 83:10, 83:13, 98:16, 111:7, 113:16, 113:17, 116:2, 120:17, 120:18, 121:7, 121:13, 121:22, 122:9, 123:5, 123:9, 123:12 2019 1:15, 64:4, 75:18, 111:1, 161:15 202 2:7, 3:15 2023 161:16 2200 2:7, 3:15 23 93:18 23456 4:8 2401 4:7</p>	<p>26 111:1 262152 1:20 27 97:2 28 102:22, 103:4, 104:5, 104:6, 104:13 29.8 146:17 2:-cv 1:7, 7:10 <hr/>3 <hr/>30 126:19, 133:7 302 3:6 312 3:8 33.3 136:10, 137:6 33.9 148:2 35 34:10, 65:1 36.8 94:17, 95:3 38 99:9 38.5 99:8 385 4:9 39.6 147:15 3rd 161:14 <hr/>4 <hr/>40 65:1, 147:16 400 3:13 41 44:6, 103:5</p>	<p>42 135:20 44 103:5, 147:17 44.1 146:19, 147:12 44.2 94:17, 95:3, 95:15 45.2 129:19 46 103:5 47.9 148:8 48.7 148:11, 151:12 49.6 147:11, 147:12 <hr/>5 <hr/>50 53:19, 93:20, 109:21, 126:18, 129:8, 146:18, 146:19 500 53:10 53 133:6 55 110:13 5508 3:8 56 64:13, 149:18 561 3:8 5825 10:2 59.4 129:6, 129:21 <hr/>6 <hr/>60 49:16, 49:17, 49:19, 50:22, 51:1, 51:4,</p>	<p>51:15, 51:22, 52:12, 58:12, 90:20 60603 3:7 60637 10:3 62 128:22 65 10:6 <hr/>7 <hr/>70 49:21, 50:16, 58:12, 86:15 73 3:5 736 2:7, 3:15 757 4:9 <hr/>8 <hr/>8.6 132:6, 132:11 80 42:14, 50:19, 58:13, 126:20, 127:2, 133:9, 133:12 8803 4:9 <hr/>9 <hr/>90 42:13, 50:19, 141:11, 145:15 94 120:12, 120:21 98 120:13, 120:15</p>
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July 15, 2019

Expert Report:

Racially Polarized Voting in Virginia Beach

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Contents

Purpose and Summary	3
Measuring Racially Polarized Voting (RPV)	4
Homogeneous Precinct Analysis	4
Ecological Regression	5
Ecological Inference	6
Racial Polarization in City Council Elections	7
A Guide for Interpreting Figures	8
RPV Analysis of Minority Candidates	11
Racial Polarization in Federal Elections	30
Analysis of Alternative Districts	32
Qualifications	35
Appendices	37
A. Technical Note: Merging Census and Elections Data	38
B. RPV Analysis for Elections with George Furman	39
C. Curriculum Vitae	42

Purpose and Summary

I have been asked by the Campaign Legal Center to analyze election returns in the city of Virginia Beach, Virginia. I have specifically been asked to assess whether there is any evidence of racially polarized voting and whether white bloc voting is usually sufficient to defeat minority candidates of choice. Using election data from fourteen races between 2008-2018 I find the following:

1. Despite a citywide black population of approximately 90,000 (20%), only six African Americans have ever served on the Virginia Beach City Council in its fifty-five year history. Of the 605 possible seats during that time (eleven seats \times 55 years) less than 1% have been occupied by an African American.
2. The overall lack of minority representation on the City Council is not due to a lack of minority candidates. Between 2008-2018, 23% of all candidates on the ballot for the City Council (20 out of 87) were black, yet just five won their election.
3. There is evidence of racially polarized voting between minority and white voters in Virginia Beach elections. Excluding George Furman, a black candidate who ran and lost in 2010, 2014, and 2016 and was not the candidate of choice among black or other minority voters in any of those elections, ten of the 16 black candidates who ran were the candidates of choice for minority voters.
4. Of the ten candidates of choice for black voters, seven faced strong opposition by white voters and were defeated by white bloc voting.
5. There is strong evidence of voting cohesion between black voters and other minority group voters in city council elections.
6. There is also strong evidence of racially polarized voting in federal elections, including the 2008 Democratic presidential primary.

Measuring Racially Polarized Voting

Because voting is a private act, it is impossible to know for certain how individuals cast their ballots. How is it possible, then, to estimate the preferences of white or minority voters when their individual identity is not known? Exit polls and surveys are one way to match the demographic characteristics of a voter with his or her vote choice. Unfortunately, there is no historical survey data on vote choice that are representative of racial minority groups in Virginia Beach over the time period of my analysis. Instead, I leverage information about individual voting precincts to infer the voting behavior of demographic subgroups, using the following three methods: (1) homogeneous precinct analysis, (2) ecological regression, and (3) ecological inference.

Homogeneous Precinct Analysis

The first method for inferring the voting behavior of racial groups compares the election outcomes in voting precincts that are racially homogeneous. An example is presented in Table 1. This example illustrates how precinct-level demographics and vote totals can be used to estimate support for different candidates among different racial groups. In statistical parlance, we observe the “marginal distributions” of data that give us a single piece of information, such as how many white people live in a precinct or how many votes the Democratic candidate got, and use this data to estimate unobserved “joint distributions,” such as how many white people voted for the Democratic candidate.

	<u>Precinct 1</u>			<u>Precinct 2</u>		
	Candidate A	Candidate B		Candidate A	Candidate B	
Black voters	?	?	3	?	?	95
White voters	?	?	97	?	?	5
	90	10	100	8	92	100

Table 1: Hypothetical voting precincts with 100 voters. The marginal distribution (numbers outside the box) is observed while the joint distribution (question marks inside the boxes) is unobserved. Homogeneous precinct analysis uses the marginal distribution to estimate the joint distributions. In this example, the election returns in Precinct 1 show that white voters strongly preferred Candidate A, while election returns in Precinct 2 shows that black voters strongly preferred Candidate B.

Homogeneous precinct analysis is used to estimate joint distributions by looking at the election results in precincts where the population is very homogeneous. In the example in Table 1, Precinct 1 is 97% white and Precinct 2 is 95% black. The intuition behind homogeneous precinct analysis is that the election outcomes in Precinct 1 will be a good proxy of how white people vote more generally and the election outcomes in Precinct 2 will be a good proxy of how black people vote more generally.

Ecological Regression

One important limitation to homogeneous precinct analysis is its reliance on a small subset of voting precincts. Ecological regression compensates for this problem by extrapolating voter behavior from the correlation of race and candidate preference across the entire sample of voting precincts. In practice, ecological regression plots the vote totals for a candidate on the y-axis against the target population on the x-axis and uses ordinary least squares (OLS) regression to fit a line through the data.¹ The "best-fit" line is then used to estimate support for each candidate: white support is the value where the trend line crosses 100% in a plot of white citizen voting age population (CVAP) and minority support is the value where the trend line crosses 100% in a plot of minority CVAP. This method is illustrated in various figures throughout this report. One limitation of ecological regression is its reliance on linear regression, which can be negative or exceed 100%, adding some confusion to the model's practical interpretation.² Ecological regression can also be misleading when the underlying data do not have a linear relationship.³ To address this problem, I turn to a third method that has become the gold-standard for evaluating racially polarized voting in Voting Rights Act litigation: ecological inference.

¹For an overview of the mechanics of ecological regression see Leo S. Goodman, *Some Alternatives to Ecological Correlation*, 64 AM. J. SOC. 610 (1959) and J. Morgan Kousser, *Ecological Regression and the Analysis of Past Politics*, 4 J. INTERDISC. HIST. 237 (1973).

²In this report, when ecological regression estimates are negative or exceed 100% I report the coefficients as 0 or 100, respectively.

³See D. James Greiner, *Causal Inference in Civil Rights Litigation*, 122 HARV. L.REV. 533 (2008).

Ecological Inference

Whereas homogeneous precinct analysis is conceptually compelling, it throws away a substantial (majority) percentage of relevant data. Whereas ecological regression incorporates all available data and is visually compelling, it presumes a linear relationship between election returns and the racial composition of voting precincts, which may not be true.

A third method, developed by Gary King at Harvard, addresses these particular limitations.⁴ King's ecological inference (EI) improves on previous attempts at ecological inference by generalizing the relationship between marginal and joint distributions (see Table 2) and employing OLS regression to estimate a relationship that is always linear based on observations from the full dataset of voting precincts.

Instead of comparing election outcomes to the size of the minority population, King's EI leverages the fact that voting preferences between white voters (β_i^w) and nonwhite voters (β_i^b) will always be linear. Using the notation in Table 2:

	Candidate A	Candidate B	
Nonwhite voters	β_i^b	$1 - \beta_i^b$	χ_i
White voters	β_i^w	$1 - \beta_i^w$	$1 - \chi_i$
	T_i	$1 - T_i$	N_i

Table 2: Marginal distribution (χ_i, T_i) and joint distribution (β_i^b, β_i^w) of vote shares for two candidates.

$$\beta_i^w = \left(\frac{T_i}{1 - \chi_i} \right) - \left(\frac{\chi_i}{1 - \chi_i} \right) \beta_i^b$$

This relationship is called the "method of bounds" and formalizes the simple fact that white support for a candidate can be inferred by subtracting the nonwhite vote from the total of possible votes. When there are more possible votes than nonwhite votes (or more nonwhite votes than possible votes), the estimated white support will fall into a range. This range is bounded by the particulars of each precinct. For example, if 90% of voters supported Candidate A and 80% of all voters were white, then white support for Candidate A must fall somewhere between the bounds of 70% (if all nonwhite voters supported Candidate A) and 80% (if no nonwhite voters supported Candidate A). King's EI then uses regression analysis to narrow those

⁴See GARY KING. A SOLUTION TO THE ECOLOGICAL INFERENCE PROBLEM. (1997). See also GARY KING ET AL. ECOLOGICAL INFERENCE: NEW METHODOLOGICAL STRATEGIES.(2004), BERNARD GROFMAN, LISA HANDLEY & RICHARD G. NIEMI. MINORITY REPRESENTATION AND THE QUEST FOR VOTING EQUALITY. (1994), and Kosuke Imai, Ying Lu & Aaron Strauss, *Bayesian and Likelihood Inference for 2x2 Ecological Tables: An Incomplete Data Approach*, 16 POL. ANALYSIS 41 (2008).

bounds based on the bounds of similar precincts. When there are many demographically similar precincts the EI estimates become quite precise, meaning the confidence interval for each estimate is small. When there are few demographically similar precincts the confidence intervals are larger. Because King's EI is not as easily explained as homogeneous precinct analysis, nor as visually intuitive as ecological regression, I present the results of all three methods in my analysis below. The strongest case that voting is racially polarized is when all three methods generate similar estimates and point in the same direction, which is nearly always the case in Virginia Beach.

Racial Polarization in City Council Elections

The Virginia Beach City Council has eleven members who are elected to four-year terms in the November general election. Nearly all candidates run as independents. Five members are elected in presidential years and six members are elected in midterm years. All members are elected at-large though seven seats have a residency requirement and one seat is designated as the Mayor. See Table 3. There are currently two black members of the Virginia Beach City Council, both of whom were elected in 2018.⁵ Before 2018, just four black residents in the city's fifty-five year history had ever served on the Council (three elected and one appointed) despite a citywide black population of 83,000, or 18%.⁶ The overall lack of minority representation is not due to a lack of minority candidates. Between 2008 and 2018 23% of all candidates for the Council (20 out of 87) were black. However, there is strong evidence of racially polarized voting between minority and white voters in Virginia Beach elections. Ten of the 17 black candidates who ran were the candidate of choice for black and other minority voters.⁷ Of the ten candidates who were the candidate of choice, seven faced strong opposition by white voters and were defeated by white bloc voting.⁸

⁵A directory of the current Council is available at: <https://www.vbgov.com/government/departments/city-clerk/city-council/Pages/city-council-members.aspx>.

⁶As of 2017 the Census reports that the share of Virginia Beach's population that is Black or African American (and not Hispanic) is 18.42%. See ACS Demographic and Housing Estimates, 2013-2017 American Community Survey 5-year Estimates (Table DP05).

⁷I exclude George Furman who ran for the City Council in 2010, 2014, and 2016 but was not the candidate of choice among black voters in any of those elections. See Appendix B.

⁸I am still gathering electoral data and intend to analyze more elections as data become available, particularly the elections involving Ron Villanueva, a Filipino, who served on the city council between 2002-2009.

Election			
	year	method	Residency req.
1	Presidential	at-large	– (Mayor)
2		at-large	–
3		at-large	Centerville
4		at-large	Kempsville
5		at-large	Rose Hall
6	Midterm	at-large	–
7		at-large	–
8		at-large	Bayside
9		at-large	Beach
10		at-large	Lynnhaven
11		at-large	Princess Anne

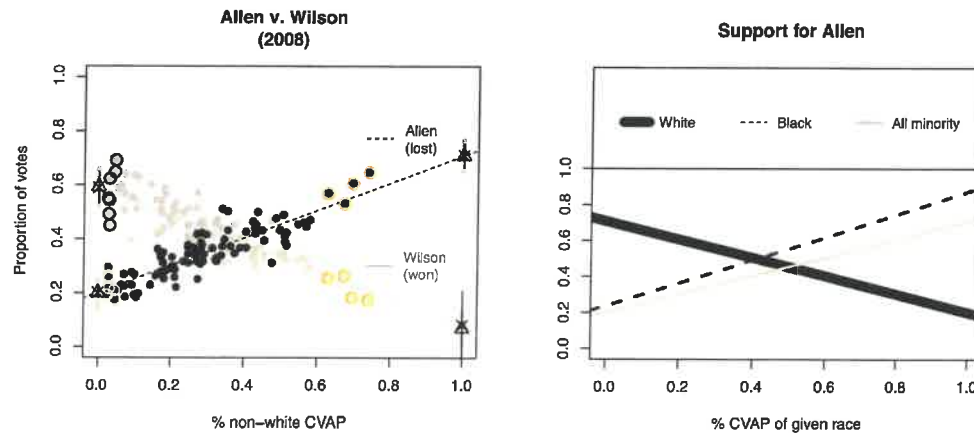
Table 3: Overview of the election year, method, and residency requirement for seats on the eleven-member Virginia Beach City Council.

A Guide for Interpreting Figures in this Report

Consider the case of Georgia Allen, a black female who challenged the white female incumbent Rosemary Wilson for the at-large city council seat in 2010. Although Ms. Allen was the candidate of choice for minority voters, she lost the election with just 35% of the vote. Figure 1 (next page) plots the proportion of voters that supported Ms. Allen on the y-axis against the proportion of the minority citizen voting age population (CVAP) on the x-axis. Each dot in the left panel represents one precinct. Support for Ms. Allen spanned a range from 23% in the Capps Shop precinct to 67% in the Newtown precinct. Her support increased as the percent minority CVAP increased. The results of all three statistical methods are presented.

The homogeneous precinct analysis compares vote totals in the most racially homogeneous precincts. Thirteen precincts in Virginia Beach were majority-minority in 2008. The Baker, Newtown, Davis Corner, and Reon precincts had a minority population that exceeded > 60% and they are circled in orange in the figure. Five precincts—Capps Shop, Kings Grant, Lake Joyce, Ocean Park, and Rudee—are all at least 96% white and are circled in gray. Support for Ms. Allen in the homogeneous minority precincts was 58.7% (sd=4.9) compared to just 24.4% (sd=4.0) in the homogeneous white precincts.

The dotted diagonal line in the left panel represents the “best-fit” line of the ecological regression. This regression extrapolates from the observed data to provide estimates of support when minority CVAP is 100% and when white CVAP is 100%,



Georgia Allen

	Homogeneous precincts (\odot)	Ecological regression (Δ)	King's EI (\times)
Black support (%)	59.4	87.2	86.3*
All minority support (%)**	58.7*	70.8*	70.5*
White support (%)	22.9	20.0	19.9

* Estimated minority support is statistically significantly different from estimated white support ($p < 0.01$).

** All minority support includes Hispanic, Asian, and other minority groups.

Figure 1: Estimated support for Georgia Allen in the 2008 election for Virginia Beach's at-large seat. All three methods of estimating support for Ms. Allen by race illustrate that she was the candidate of choice for all minority voters—by individual race and as a coalition—and that white bloc voting contributed to her defeat.

and is marked by Δ in the figure.⁹ 95% confidence intervals are marked with gray vertical lines. The ecological regression estimates that 70.8% of minority voters supported Ms. Allen compared to 20.0% of white voters ($\pm 5.7\%$). This difference is large and is statistically significant ($p < 0.001$).¹⁰

The estimates generated using King's EI are very similar with an estimated 70.5% support among minority voters ($\pm 4.29\%$) and 19.9% support among whites ($\pm 1.8\%$). King's EI estimates are plotted in the left panel with an \times and the 95% confidence intervals are plotted as vertical solid lines. The difference between King's EI estimates for minority and white support is statistically significant ($p < 0.001$).

Together these three different approaches—homogeneous precinct analysis, ecolog-

⁹White support is plotted where black CVAP is 0% for illustrative purposes. White CVAP is not necessarily 100% when black CVAP is 0%.

¹⁰Statistical significance is determined using a Student's t-test.

ical regression, and King's EI— suggest that all minority voters strongly preferred Ms. Allen and that white voters did not. Furthermore, King's EI can be used to show that Ms. Allen was the preferred candidate of black, and other minority voters by overwhelming margins (and much larger than the winning candidate's vote total of 44%). In the right panel I plot the ecological regression best-fit line predicting support for Ms. Allen by race. The lines representing black and other minority precincts are all pointing in the same direction; all have a positive slope, meaning the larger the minority population in a precinct the more support for Ms. Allen. On the other hand, the best-fit line representing white precincts cuts in the opposite direction, illustrating white bloc voting against Ms. Allen. To illustrate the implications of this opposition, I plot the vote totals for the candidate that won the at-large seat that Ms. Allen contested in 2008. See gray dots in the left panel of Figure 1. Support for Ms. Allen's white opponent, Rosemary Wilson, exceeded 53.2% in homogeneous white districts, but was just 22.0% in homogeneous minority precincts. Minority support for Ms. Wilson was just 7% based on ecological regression and 8% based on ecological inference. Wilson ultimately defeated Allen 44.1% to 34.6%. According to the voting patterns in Figure 1, Ms. Allen was the clear candidate of choice for all minority voters—by individual race and as a coalition—and white bloc opposition voting contributed to her defeat.

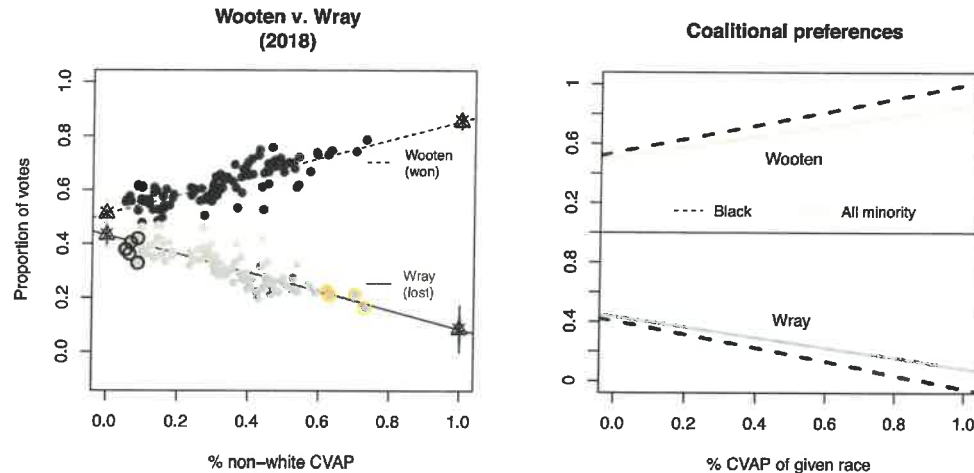
RPV Analysis of Minority Candidates

In the pages that follow, I present figures and captions for every race that involved a nonwhite candidate between 2008-2018. In the table below, I summarize the racial polarization of every “probative” election between 2008-2018. I define elections as probative of racially polarized voting when they feature a minority candidate running for the office under investigation; in this case the City Council. In seven of the fourteen probative elections in my sample I find strong evidence of racially polarized voting: racial minority voters are cohesive in their support for a particular candidate and white voters opposed the same candidate sufficiently to deter his or her election. In addition, in 11 of the 14 races I find evidence that all minority voters share the same strong preference for a candidate and vote as a coalition. In the sections that follow I present a detailed analysis of each race followed by a summary of all races in each election year.

		Minority		White
		coalition	cohesion	opposition
CENTERVILLE	2018	At-large Princess Anne	✓	
	2016	Mayor Kempsville	✓ ✓	✓
	2014	At-large Rose Hall Princess Anne	✓ ✓	✓
	2012	Kempsville	✓	✓
	2011	Rose Hall	✓	✓
	2010	At-large Bayside Princess Anne	✓ ✓	✓ ✓
	2008	At-large Kempsville	✓ ✓	✓ ✓

Table 4: Summary of racial polarization in voting by probative elections, which are defined as previous city council races that featured a minority candidate.

2018 Virginia Beach City Council Election (Centerville)



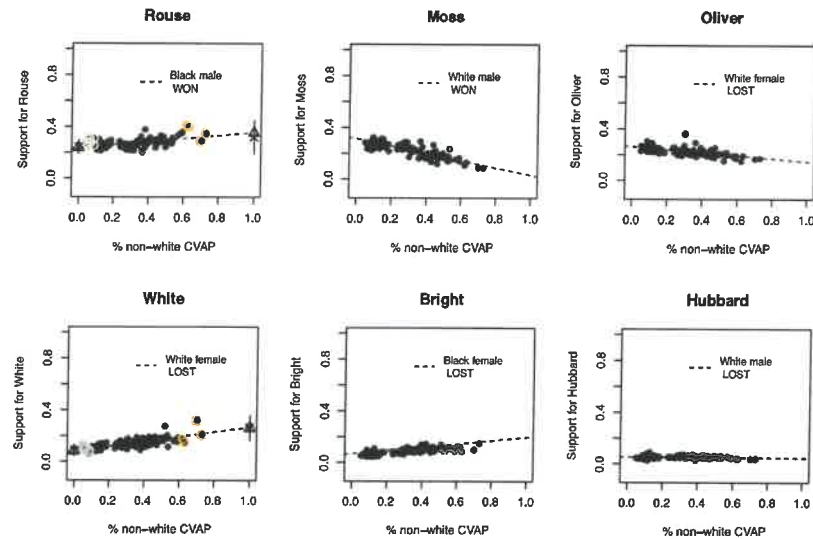
	Homogeneous precincts (⊙)	Ecological regression (Δ)	King's EI (×)
Sabrina Wooten			
Black support (%)	75.7*	99.5*	95.6*
All minority support (%)**	75.0*	85.4*	85.5*
White support (%)	56.5	51.1	51.1
Eric Wray II			
Black support (%)	19.7*	0.0*	1.1*
All minority support (%)**	20.4*	8.5*	8.5*
White support (%)	38.0	43.3	43.3

* Estimated minority support is statistically significantly different from estimated white support ($p < 0.01$).

** All minority support includes Hispanic, Asian, and other minority groups.

Figure 2: The 2018 election for the Centerville seat provides evidence that all minority voters formed a coalition in support of Ms. Sabrina Wooten and against Mr. Eric Wray II (both of whom were minority candidates). Election results also show that that Ms. Wooten benefited from crossover support from white voters. Ms. Wooten was the clear candidate of choice for black and other minority voters. While white voters did not support Ms. Wooten at the level of minority voters, they did not vote as a bloc in opposition to her. In fact, Ms. Wooten earned more support from white voters than any other minority candidate between 2008-2018; the 51% of white voters who supported her is more than three times the average support for minority candidates during this time period. Note a third candidate, Conrad Schesvener received very little support from all voters, and earned just 5.8% of the vote.

2018 Virginia Beach City Council Election (At-large: 2 seats)



	Homogeneous precincts (⊙)	Ecological regression (Δ)	King's EI (×)
Aaron Rouse			
Black support (%)	34.4	41.2*	36.6
All minority support (%)**	36.0*	35.2*	31.8
White support (%)	27.6	23.5	24.4
Linda Bright			
Black support (%)	11.4*	19.5*	23.1*
All minority support (%)**	11.6*	16.0*	16.5*
White support (%)	6.2	5.9	5.7

* Estimated minority support is statistically significantly different from estimated white support ($p < 0.01$).

** All minority support includes Hispanic, Asian, and other minority groups.

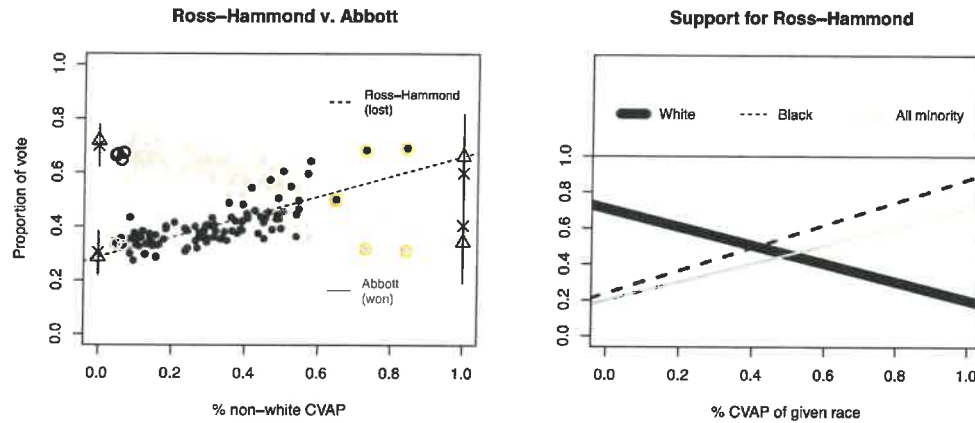
Figure 3: The 2018 at-large election provides mixed evidence of coalitional voting, minority cohesion, and oppositional white voting. Aaron Rouse (black male) and Allison White (white female) were the candidates of choice for all minority voters, who split their votes between the two candidates. Mr. Rouse won a seat with the most votes due to crossover support from white voters. Ms. White came in a distant fourth (of six candidates) due to opposition voting by white voters. John Moss, an incumbent, narrowly defeated Dee Oliver for the second seat. Linda Bright (black female) was not the most preferred candidate among minority voters, yet her support was strong enough to be in the running; her support among minority voters was stronger than Mr. Moss's overall support but less than estimated minority support for Ms. White. Ms. Bright faced strong oppositional voting among white voters and came in 5th of six candidates.

2018 Virginia Beach City Council Election
(All Probative Races)

	Candidate (incumbent [†])	Overall vote		HP	ER	EI	Won election?	Minority cand. of choice	Minority % ↑ winner?
At-large	Rouse	26.7	Black All Minority White	34.4 36.0* 27.6	41.2* 35.2* 23.5	36.6 31.8 24.4	✓	✓	
	Moss [†]	22.6	Black All Minority White	10.2* 10.3* 26.6	0.0* 3.3* 31.1	0.4* 3.9* 30.8	✓		
	Oliver	22.5	Black All Minority White	17.6 16.9 25.5	9.1 14.3 26.0	7.4 14.8 25.9			
	White	13.7	Black All Minority White	22.6* 21.3* 9.6	34.8* 26.4* 8.2	36.3* 26.1* 8.3		✓ ✓	✓ ✓
	Bright	8.8	Black All Minority White	11.4* 11.6* 6.2	19.5* 16.0* 5.9	23.1* 16.5* 5.7			
	Hubbard	5.1	Black All Minority White	3.8 3.8 4.6	4.2 4.6 5.3	2.7 4.0 5.8			
Centerville	Wooten	62.1	Black All Minority White	75.7* 75.0* 56.5	99.5* 85.4* 51.1	95.7* 85.5* 51.0	✓	✓	
	Wray	32.1	Black All Minority White	19.7* 20.4* 38.0	0.0* 8.5* 43.3	1.1* 8.5* 43.4			
	Schesventer	5.8	Black All Minority White	4.6 5.0 5.6	5.8 6.2 5.7	7.8 6.2 5.7			

* $p < 0.05$ (minority vs. white support). Candidates of color highlighted by red text.

2016 Virginia Beach City Council Election (Kempsville)



Amelia Ross-Hammond

	Homogeneous precincts (⊙)	Ecological regression (Δ)	King's EI (×)
Black support (%)	62.3*	83.3*	76.7*
All minority support (%)**	62.1*	65.9*	59.9*
White support (%)	33.9	28.4	30.3

* Estimated minority support is statistically significantly different from estimated white support ($p < 0.01$).

** All minority support includes Hispanic, Asian, and other minority groups.

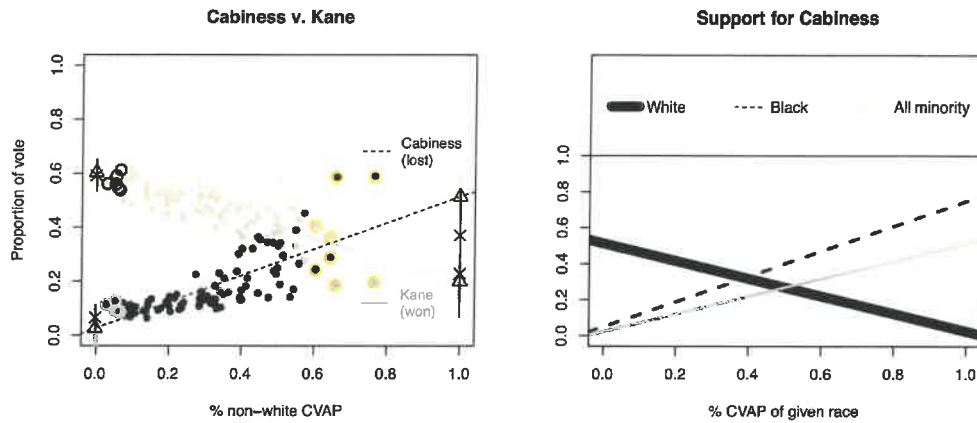
Figure 4: The 2016 election for the Kempsville seat provides strong evidence of coalitional racially polarized voting. Amelia Ross-Hammond was just the third black member of the Virginia Beach City Council in its fifty-five year history and was seeking re-election after her first term. She was strongly supported by black and other minority voters. As a coalition, estimated support among racial minority voters for Ms. Ross-Hammond (59.9%) was higher than the overall vote total of her opponent Jessica Abbott (59.4%). Despite incumbency and strong support among a cohesive coalition of minority voters, Ms. Ross-Hammond was defeated due to white bloc voting in opposition to her candidacy. This pattern is plotted in the right panel. The best-fit lines from ecological regressions predicting support among black and other minority voters are positively sloped, illustrating that as the minority population increases in a precinct so does support for Ms. Ross-Hammond. On the other hand, the negatively sloped thick line illustrates that white support for Ms. Ross-Hammond cuts against the voting preferences of the coalition of minority voters.

2016 Virginia Beach City Council Election
(All Probative Races)

	Candidate (incumbent [†])	Overall vote		HP	ER	EI	Won election?	Minority cand. of choice	Minority % ↑ winner?
Mayor	Sessoms [†]	54.3	Black	64.1	73.3*	75.4*		✓	
			All Minority	63.7*	66.1*	66.1*	✓	✓	
			White	52.5	48.2	47.1			
	Kowalewitch	19.5	Black	12.1*	0.0*	1.4*			
			All Minority	11.9*	5.8*	4.8*			
			White	24.8	27.0	27.4			
	Weeks	18.6	Black	10.1*	4.8*	3.6*			
			All Minority	10.8*	10.1*	10.9*			
			White	18.8	21.8	21.8			
	Furman	7.6	Black	13.7*	23.7*	26.5*			
			All Minority	13.6*	18.1*	18.1*			
			White	3.9	3.0	3.0			
Kempsville	Abbott	59.4	Black	37.7*	16.7*	23.1*			
			All Minority	37.9	34.1	40.6	✓		
			White	66.1	71.6	69.7			
	Ross-Hammond [†]	40.6	Black	62.3*	83.3*	76.8*		✓	✓
			All Minority	62.1*	65.9*	59.9*		✓	✓
			White	33.9	28.4	30.1			

* $p < 0.05$ (minority vs. white support). Candidates of color highlighted by red text.

2014 Virginia Beach City Council Election (Rose Hall)



James Cabiness

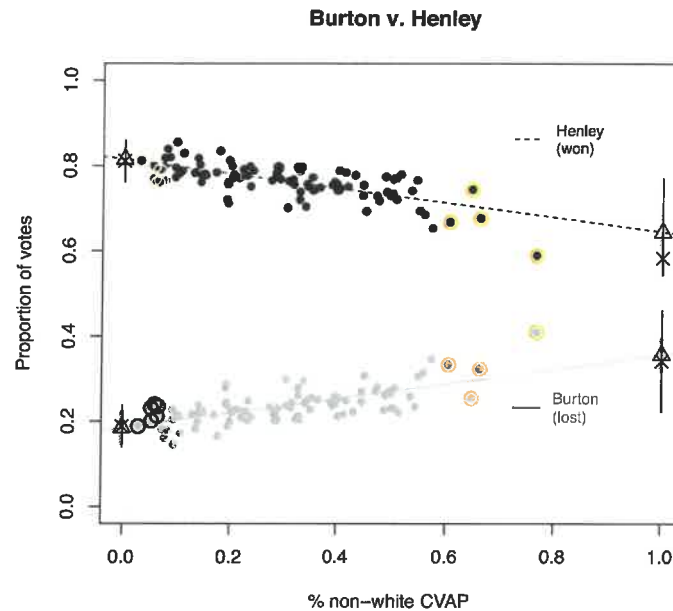
	Homogeneous precincts (⊙)	Ecological regression (Δ)	King's EI (×)
Black support (%)	48.7	74.7*	51.7*
All minority support (%)**	42.6*	51.2*	37.0*
White support (%)	9.9	2.4	6.4

* Estimated minority support is statistically significantly different from estimated white support ($p < 0.01$).

** All minority support includes Hispanic, Asian, and other minority groups.

Figure 5: The 2014 special election for the Rose Hall seat provides evidence of coalitional racially polarized voting. Mr. James Cabiness was the clear candidate of choice for black and other minority voters yet he earned the least amount of votes among four candidates and was easily defeated by white candidate Shannon Kane. Mr. Cabiness faced two challenges that proved too difficult to overcome. The first was strong opposition among white voters, whose support is estimated in the single digits making Mr. James the least popular of all candidates among white voters. As the right panel illustrates, support for Mr. Cabiness among white voters cuts strongly against his estimated support among minority voters. The second challenge was campaign finance: Mr. Cabiness was outspent by Ms. Kane \$122,000 to \$3,500. (See the Virginia Public Access Project at: <https://www.vpap.org/candidates/190492-james-cabiness/>).

2014 Virginia Beach City Council Election
(Princess Anne)



Pieri Burton

	Homogeneous precincts (⊙)	Ecological regression (Δ)	King's EI (×)
Black support (%)	33.0	42.3*	41.8
All minority support (%)**	33.9	35.6*	34.3
White support (%)	21.8	18.5	18.9

* Estimated minority support is statistically significantly different from estimated white support ($p < 0.01$).

** All minority support includes Hispanic, Asian, and other minority groups.

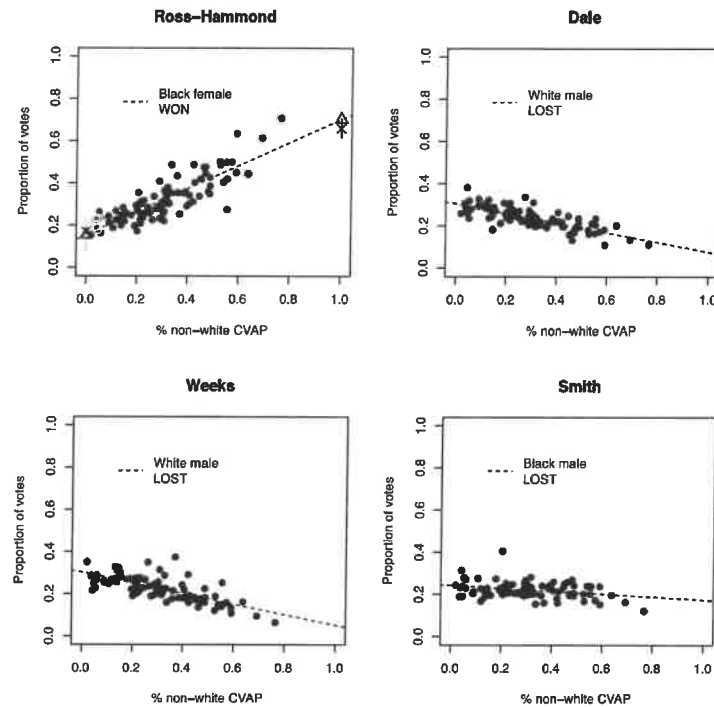
Figure 6: The 2014 election for the Princess Anne seat provides little evidence of minority coalitional voting, coethnic vote cohesion, or oppositional white bloc voting. Incumbent Barbara Henley, a white female, decisively retained her seat against a challenge from Pieri Burton, a black male. Support for Ms. Henley was strong among white voters (80-20%) as well as black (58-42%) and other minority voters (65-35%).

2014 Virginia Beach City Council Election
(All Probative Races)

	Candidate (incumbent [†])	Overall vote		HP	ER	EI	Won election?	Minority cand. of choice	Minority % ↑ winner?
At-large	Davenport	32.7	Black All Minority White	51.5 46.9 32.1	58.2* 45.9* 28.1	48.5* 39.5* 30.0	✓	✓	
	Moss [†]	32.6	Black All Minority White	22.5* 24.8* 35.4	14.0* 21.3* 36.6	14.4* 21.7* 36.8	✓		
	Martin	26.7	Black All Minority White	15.2 17.0* 27.2	8.7* 17.1* 30.0	11.2* 19.0* 29.3			
	Furman	8.1	Black All Minority White	10.9* 11.3* 5.3	19.1* 15.7* 5.3	23.4* 16.4* 5.1			
Rose Hall (special)	Kane	48.3	Black All Minority White	24.9* 19.7* 56.6	1.5* 19.9* 60.2	8.1* 22.7* 59.1	✓		
	Johnston	17.5	Black All Minority White	10.2* 11.3* 18.0	5.4* 10.3* 20.3	3.8* 10.2 20.8			
	Browder	17.3	Black All Minority White	16.2 17.4 15.5	18.4 18.6 17.1	24.3 19.9 16.6			
	Cabiness	16.8	Black All Minority White	48.7 42.6* 9.9	74.7* 51.2* 2.4	51.7* 37.0* 6.4		✓ ✓	✓
Princess Anne	Henley [†]	76.7	Black All Minority White	67.0 67.0* 78.2	57.7* 64.4* 81.5	58.0* 65.5* 81.1	✓	✓ ✓	
	Burton	23.3	Black All Minority White	33.0 33.0* 21.8	42.3* 35.6* 18.5	41.8* 34.3* 18.9			

* $p < 0.05$ (minority vs. white support). Candidates of color highlighted by red text.

2012 Virginia Beach City Council Election (Kempsville)



Amelia Ross-Hammond

	Homogeneous precincts (⊙)	Ecological regression (Δ)	King's EI (×)
Black support (%)	58.6*	90.2*	86.9*
All minority support (%)**	55.6*	70.0*	65.7*
White support (%)	20.1	15.4	17.0

* Estimated minority support is statistically significantly different from estimated white support ($p < 0.01$).

** All minority support includes Hispanic, Asian, and other minority groups.

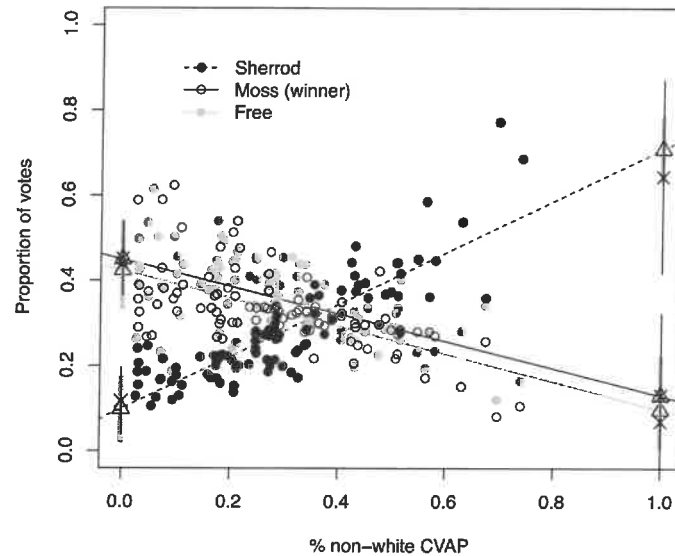
Figure 7: The 2012 election for the Kempsville seat provides strong evidence of minority cohesion as support among black and other minority voters was overwhelming in favor of black candidate Ms. Ross-Hammond. Voting patterns also indicate that Ms. Ross-Hammond was the least popular of all four candidates among white voters. However, white voters split their support between Ms. Ross-Hammond's opponents and the result was a victory for Ms. Ross-Hammond, who became just the third black member of the Virginia Beach City Council in the city's history.

2012 Virginia Beach City Council Election
(All Probative Races)

	Candidate (incumbent [†])	Overall vote		HP	ER	EI	Won election?	Minority cand. of choice	Minority % ↑ winner?
Kempsville	Ross-Hammond	32.2	Black	58.6*	90.2*	86.9*		✓	
			All Minority	55.6*	70.0*	65.7*		✓	
			White	20.1	15.4	17.0	✓		
	Dale	23.2	Black	14.8*	0.0*	2.1*			
			All Minority	15.1*	7.6*	7.6*			
			White	28.8	30.4	30.2			
	Weeks	22.5	Black	10.6*	0.0*	0.3*			
			All Minority	12.0*	5.1*	5.7*			
			White	26.6	30.0	29.8			
	Smith	22.1	Black	15.9*	12.8*	13.4*			
			All Minority	17.3*	17.3*	17.9			
			White	24.5	24.2	24.1			

* $p < 0.05$ (minority vs. white support). Candidates of color highlighted by red text.

2011 Virginia Beach City Council Election
(At-large special)



Prescott Sherrod

	Homogeneous precincts (⊙)	Ecological regression (Δ)	King's EI (×)
Black support (%)	60.5	92.4*	87.0*
All minority support (%)**	56.8*	70.9*	64.8*
White support (%)	17.5	9.8	11.5

* Estimated minority support is statistically significantly different from estimated white support ($p < 0.01$).

** All minority support includes Hispanic, Asian, and other minority groups.

Figure 8: The 2011 at-large special election provides evidence of racially polarized voting between whites and all minority voters. Mr. Prescott Sherrod, a black male, was appointed to fill this vacant seat six months before the election when the prior incumbent moved out of state. As the new short-term incumbent, Mr. Sherrod had very strong support among black and other minority voters. Support for Mr. Sherrod among white voters was so low that he was ultimately defeated.

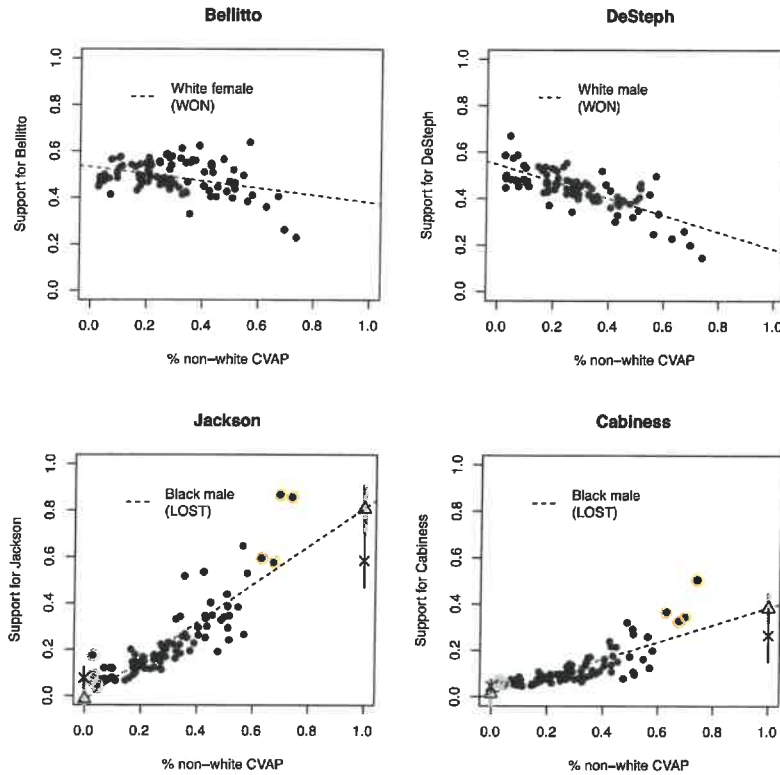
2011 Virginia Beach City Council Special Election
(All Probative Races)

	Candidate (incumbent [†])	Overall vote		HP	ER	EI	Won election?	Minority cand. of choice	Minority % ↑ winner?
At-large	Moss	37.0	Black	20.8*	2.8*	5.9*	✓		
			All Minority	22.6*	13.0*	12.8*			
			White	44.7	45.0	45.2			
	Free	33.2	Black	14.7*	0.0*	0.4*			
			All Minority	14.8 *	9.7*	6.7*			
			White	35.5	42.4	43.7			
	Sherrod [†]	25.9	Black	60.5	92.4*	87.0*		✓	✓
			All Minority	58.8*	70.9*	64.8*		✓	✓
			White	17.5	9.8	11.5			

* $p < 0.05$ (minority vs. white support). Candidates of color highlighted by red text.

Note: Candidate Mike Makela dropped out of the race two months before the election (on September 30, 2011). His name appeared on the ballot and received 3.5% of the vote.

2010 Virginia Beach City Council Election
(At-large: 2 seats)



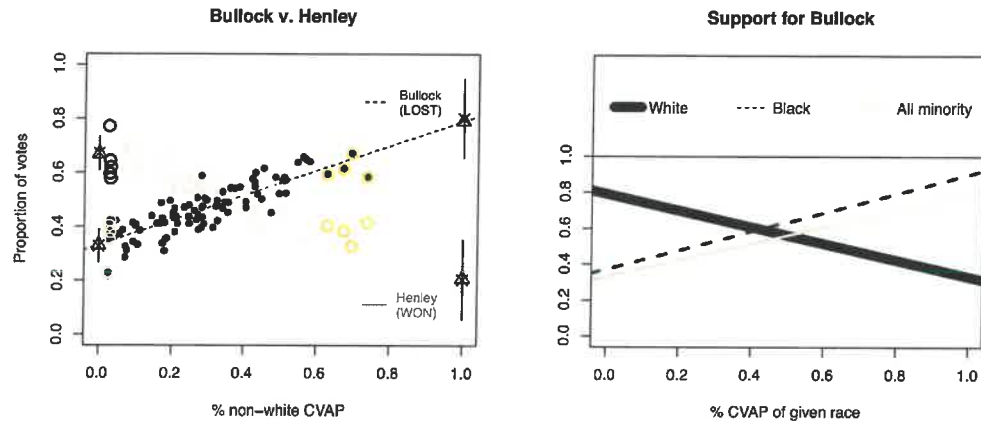
	Homogeneous precincts (⊙)	Ecological regression (Δ)	King's EI (×)
Andrew Jackson			
Black support (%)	76.7*	100.0*	85.6*
All minority support (%)**	72.4*	80.7*	58.2*
White support (%)	8.0	0.0	7.7
James Cabiness			
Black support (%)	39.2*	54.2*	38.5*
All minority support (%)**	38.6*	38.3*	26.7*
White support (%)	6.1	1.3	4.5

* Estimated minority support is statistically significantly different from estimated white support ($p < 0.01$).

** All minority support includes Hispanic, Asian, and other minority groups.

Figure 9. The 2010 at-large election provides strong evidence of coalitional voting, minority vote cohesion, and oppositional white bloc voting. Andrew Jackson, a black male, was the clear candidate of choice for black and other minority voters. However, oppositional white bloc voting was sufficient to prevent his election. There were two at-large seats and minority voters were split in their second-choice candidate. Black voters were equally supportive of James Cabiness, a black male who earned the fewest votes of all seven candidates, and Rita Bellitto, a white female who earned the most votes of all candidates. Importantly, white support was very strong for Bellitto ($> 50\%$ in a seven-candidate race) and non-existent for Cabiness ($< 5\%$). In the end, the two candidates preferred by white voters won while two of the three candidates preferred by minority voters (both of them black) came in last and second-to-last in the election.

2010 Virginia Beach City Council Election (Princess Anne)



Tanya Bullock

	Homogeneous precincts (\odot)	Ecological regression (Δ)	King's EI (\times)
Black support (%)	62.3*	89.9*	89.2*
All minority support (%)**	61.6*	79.1*	79.9*
White support (%)	37.1	33.1	32.9

* Estimated minority support is statistically significantly different from estimated white support ($p < 0.01$).

** All minority support includes Hispanic, Asian, and other minority groups.

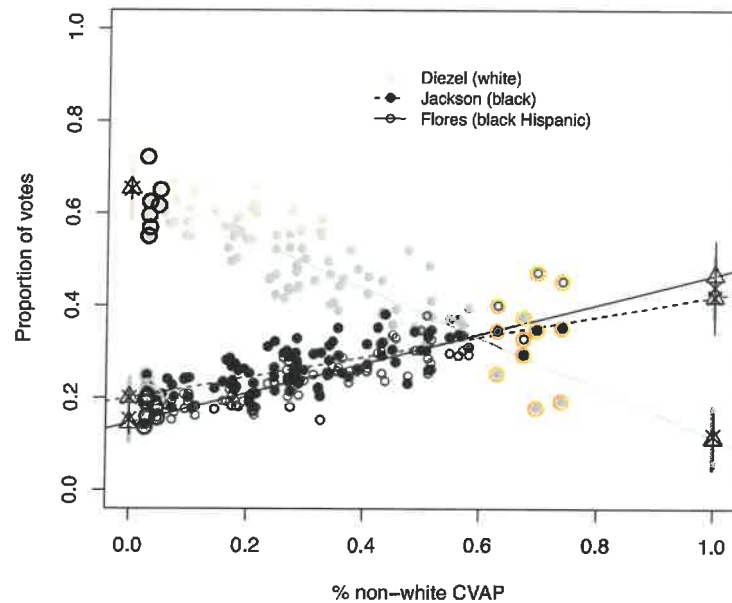
Figure 10: The 2010 election for the Princess Anne seat provides strong evidence of coalitional voting, minority vote cohesion, and oppositional white bloc voting. Tanya Bullock, a black female, was defeated despite overwhelming support among black and other minority voters (80%). White voters strongly preferred the incumbent Barbara Henley, a white female, by a margin of 2-to-1. The voting pattern in the right panel illustrates that as the minority population increases, support for Bullock substantially increases among all minority voters, while white voter support cuts strongly in the opposite direction.

2010 Virginia Beach City Council Election
(All Probative Races)

	Candidate (incumbent [†])	Overall vote		HP	ER	EI	Won election?	Minority cand. of choice	Minority % ↑ winner?
At-large	Bellitto	49.4	Black	29.8	26.3	38.0			
			All Minority	31.4	37.9	44.9	✓	✓	
			White	47.5	53.3	51.3			
	DeSteph [†]	44.8	Black	20.0*	3.1*	4.9*			
			All Minority	20.7	17.9	20.1	✓		
			White	52.4	54.6	53.9			
	Moss	30.1	Black	16.4*	7.1*	7.2*			
Bayside			All Minority	17.1	14.6	15.8			
			White	33.6	35.8	35.5			
	Erb	22.5	Black	10.1*	4.6*	0.3*			
			All Minority	11.2	10.6	11.9			
			White	23.6	27.7	27.7			
	Redmond	21.4	Black	7.5*	0.0*	1.8*			
			All Minority	8.6	0.0	0.1			
Princess Anne			White	28.7	28.8	27.6			
	Jackson	20.3	Black	76.7*	100.0*	85.6*		✓	✓
			All Minority	72.4*	80.7*	58.2*		✓	✓
			White	8.0	0.0	7.5			
	Cabiness	11.3	Black	39.2*	54.2*	38.5*			
			All Minority	38.6	38.3	26.7			
			White	6.1	1.3	4.5			
Princess Anne	Jones [†]	64.7	Black	63.2*	53.8*	55.2		✓	
			All Minority	63.1	56.2	56.6	✓	✓	
			White	68.9	67.5	67.3			
	Furman	35.3	Black	36.8	46.2	44.2			
			All Minority	36.9	43.8	43.7			
			White	31.1	32.5	32.8			
	Henley [†]	54.4	Black	37.7*	10.1*	11.0*			
Princess Anne			All Minority	38.4	10.1	20.2	✓		
			White	62.9	66.9	67.1			
	Bullock	45.6	Black	62.3*	89.9*	89.2*		✓	✓
			All Minority	61.6	79.1	79.9		✓	✓
			White	37.1	33.1	32.9			

* $p < 0.05$ (minority vs. white support). Candidates of color highlighted by red text.

2008 Virginia Beach City Council Election (Kempsville)



	Homogeneous precincts (○)	Ecological regression (Δ)	King's EI (×)
Andrew Jackson			
Black support (%)	33.2*	48.8*	50.5*
All minority support (%)**	33.5*	42.0*	42.2*
White support (%)	21.0	20.0	19.8
Jose Flores			
Black support (%)	41.8*	57.1*	56.5*
All minority support (%)**	41.4*	46.7*	44.2*
White support (%)	17.8	14.6	15.3

* Estimated minority support is statistically significantly different from estimated white support ($p < 0.01$).

** All minority support includes Hispanic, Asian, and other minority groups.

Figure 11: The 2008 election for the Kempsville provides evidence of minority cohesion, and oppositional white bloc voting. The race featured three candidates: Harry Diezel (white male incumbent), Andrew Jackson (black challenger), and Jose Flores (black Hispanic challenger). Black voters did not support the white incumbent Diezel, but almost unanimously supported Jackson or Flores. White voters, on the other hand, strongly supported Diezel. Jackson won 27% and Flores won 24% of the vote for a combined total of 51%.

2008 Virginia Beach City Council Election
(All Probative Races)

	Candidate (incumbent [†])	Overall vote		HP	ER	EI	Won election?	Minority cand. of choice	Minority % ↑ winner?
At-large	Wilson [†]	44.1	Black All Minority White	20.8* 22.0 57.1	0.0* 7.0 59.3	0.9* 8.3 58.8	✓		
	Allen	34.6	Black All Minority White	59.4* 58.7 22.9	87.2* 70.8 20.0	86.3* 70.5 19.9		✓ ✓	✓ ✓
	Strausbaugh	9.4	Black All Minority White	5.3 5.5 8.7	4.5 6.7 10.5	2.8* 7.6 12.2			
	Shuler	7.6	Black All Minority White	9.9 9.4 8.0	11.0* 10.0* 6.6	6.3* 10.7* 6.3			
	Teator	4.2	Black All Minority White	4.7 4.4 3.3	5.9 5.5 3.5	6.6 5.5 3.5			
Kempsville	Diezel [†]	48.7	Black All Minority White	25.0* 25.1 61.9	0.0* 11.3 65.4	3.7* 12.3 65.0	✓		
	Jackson	27.2	Black All Minority White	33.2* 33.5 21.0	48.8* 42.0 20.0	50.5* 42.2 19.8		✓	
	Flores	24.0	Black All Minority White	41.8* 22.0 17.8	57.1* 7.0 14.6	56.5* 8.3 15.3		✓	✓

* $p < 0.05$ (minority vs. white support). Candidates of color highlighted by red text.

Racial Polarization in Federal Elections

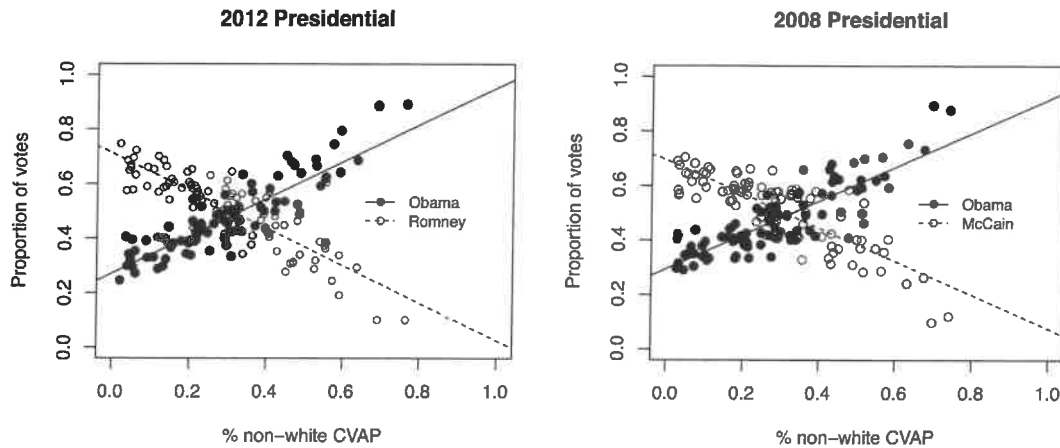


Figure 12: Presidential election returns for precincts in Virginia Beach. Minority voters strongly preferred Obama over both John McCain and Mitt Romney, with an estimated 90% support. White voters strongly preferred McCain and Romney (65% support) over Obama (35% support). Overall, Virginia Beach went for McCain in 2008 (49.7% to 48.9%) and for Romney in 2012 (50.3% to 47.8%).

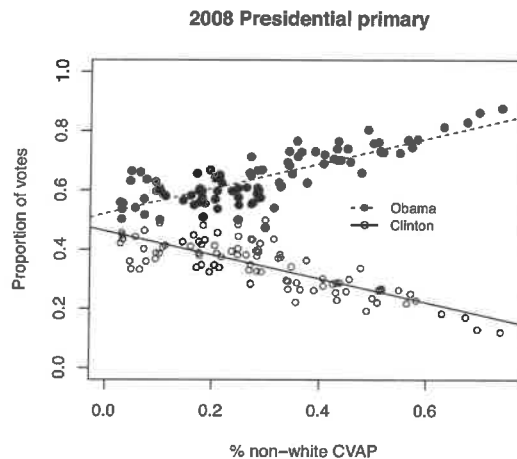
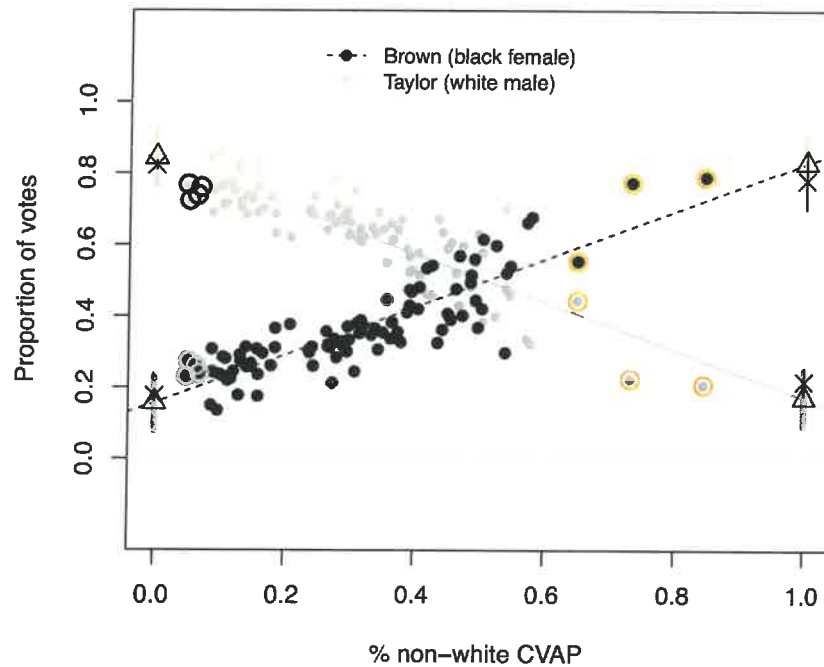


Figure 13: Precinct-level election returns for the February 2008 presidential primary. Virginia's primary elections are open to all voters, so election returns are not necessarily restricted to Democratic voters. All voters in Virginia Beach preferred Obama to Clinton (he captured 65% of the vote), but support for Obama was much stronger among minority voters. In short, even controlling for party label there is evidence of racially polarized voting in Virginia Beach.

2016 Congressional Election
(Virginia Beach precincts)



Shaun Brown

	Homogeneous precincts (⊙)	Ecological regression (Δ)	King's EI (×)
Black support (%)	70.7*	100.0*	94.9*
All minority support (%)**	70.7*	82.9*	78.1*
White support (%)	25.2	15.7	17.7

* Estimated black support is statistically significantly different from estimated white support ($p < 0.01$).

** All minority support includes Hispanic, Asian, and other minority groups.

Figure 14: The 2016 congressional election provides evidence of racial coalitional voting, minority cohesion, and oppositional white bloc voting. Minority voters strongly preferred Shaun Brown (black female) over Scott Taylor (white male). On the other hand white voters strongly supported Taylor over Brown. Despite being the candidate of choice for black and other minority voters in Virginia Beach, Brown earned just 36.6% of the city's overall votes compared to 63.3% for Taylor.

Analysis of Alternative Districts

In addition to analyzing the extent of racially polarized voting in Virginia Beach elections, I have been asked to evaluate the potential ameliorative effects of two possible voting districts. Figure 15 shows a map of Virginia Beach. The gray shaded areas are individual voting precincts and the highlighted regions are two potential majority-minority districts. A breakdown of each district's citizen voting age population (CVAP) is presented in Table 5. The question is whether minority voters in Virginia Beach will be more able to elect candidates of their choice in a district-based election that included these two districts. The short answer is yes.

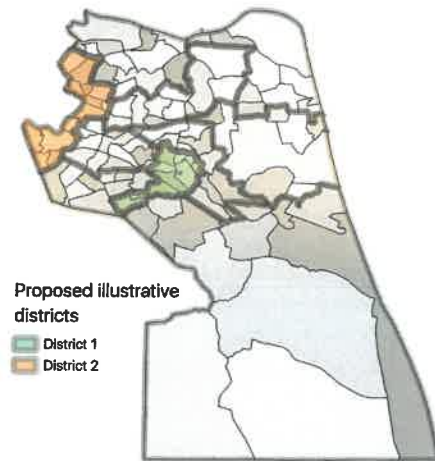


Figure 15: Two potential majority-minority districts in Virginia Beach. Gray shaded areas are voting precincts.

As I illustrate below, minority voters will be more likely to elect candidates of their choice in these two districts not just because of the sheer number of minority voters in each district, but because voting in these districts is less likely to be racially polarized. This means that black and other minority candidates are more likely to win in these districts, and are more likely to benefit from cross-over support from white voters. I arrive at this finding by merging voting data from previous elections to the boundaries of each new districts. There are 13 precincts (or parts of precincts) in the District 1 and nine precincts (or parts of precincts) in District 2.

	At-large	District 1	District 2
White CVAP	67.2	46.13	47.38
Nonwhite CVAP	32.8	50.03	50.04
Black	18.5	30.7	39.05
Hispanic	5.9	7.31	6.81
Asian	5.4	11.98	4.17

Table 5: Citizen voting age population statistics for two proposed majority-minority districts, compared to the at-large citywide population. Source: 2016 American Community Survey.

In Figure 16 I plot support for each of the six minority candidates of choice that lost between 2008-2016 and a seventh candidate that ran against the black candidate of choice (and lost) in 2010. Much like the ecological regression models presented earlier, I plot voter support on the y-axis and the percent of minority CVAP on the x-axis. Because there are so few precincts in these districts, I use a locally weighted smoother "loess" line that is flexible and represents how the data are actually structured. The loess illustrates the extent to which the homogeneous precincts (which have more leverage given the small number of observations) drive any estimates of racially polarized voting. The gray regions are 95% confidence intervals. The plots that are shaded in red signal that the candidate would have won an election in these new districts based on the same voting patterns of their original elections. I present the full dataset of estimated election outcomes in Table 6 on the next page.

There are three important takeaways from Figure 16. First, although the hypothetical elections of Jackson (2010) and Sherrod (2011) would see significant racially polarized voting in District 2, the election preferences of white and minority voters is statistically indistinguishable or not substantively significant for all other hypothetical elections in both proposed districts. The election returns in Table 6 show how voting preferences between white and minority voters would shrink considerably in the two new districts.

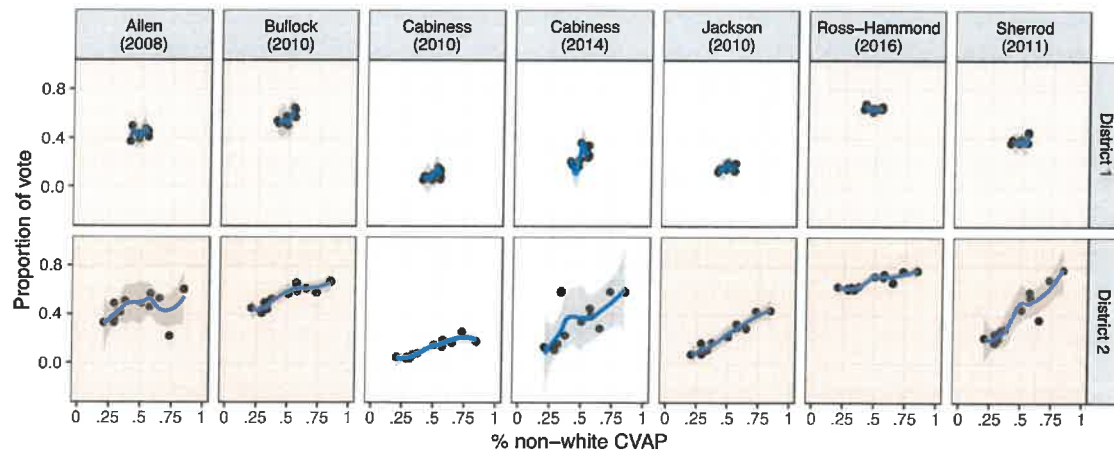


Figure 16: Precinct-level election returns for minority candidates of choice that lost their election between 2008-2016. (Mr. James Cabiness was not the candidate of choice in 2010 but competed with Mr. Andrew Jackson who was). The blue lines are locally weighted smoothing "loess" lines that do not impose a linear relationship on the data. The gray shaded regions are 95% confidence intervals. Plots that are shaded in red signal that the candidate would have won an election in these districts based on the same voting patterns of their original election.

Second, the distribution of minority voters varies considerably between the two proposed districts. In District 2 the minority CVAP ranges from 20.7% to 84.4% of precinct population. This is evidence that there is some neighborhood segregation. In District 1, on the other hand, the distribution is much more uniform with a range of 40.4-54.6%. Minority voters in District 1 are much more integrated with white voters throughout the entire district.

Year	Candidate	At-large		District 1		District 2	
		Total votes	Win election?	Total votes	Win election?	Total votes	Win election?
2016	Abbott	59.4	✓	356		32.4	
	Ross-Hammond*	40.6		64.4	✓	67.6	✓
2014	Kane	48.3	✓	41.8	✓	35.2	✓
	Johnston	17.5		14.8		15.4	
	Browder	17.3		18.5		17.6	
	Cabiness*	16.8		25.0		31.9	
2011	Moss	37.0	✓	29.4		33.7	
	Free	33.2		27.9		23.8	
	Sherrod*	25.9		39.1	✓	38.6	✓
2010 AL	Bellitto	49.4	✓	25.1	✓	20.0	✓
	DeSteph	44.8	✓	20.8	✓	17.1	
	Moss	30.1		12.0		13.7	
	Erb	22.5		9.0		10.2	
	Redmond	21.4		7.8		7.2	
	Jackson*	20.3		16.7		21.1	✓
	Cabiness*	11.3		8.7		10.9	
2010 PA	Henley	54.4	✓	42.1		46.8	
	Bullock*	45.6		57.9	✓	53.2	✓
2008 AL	Wilson	44.1	✓	34.5		36.8	
	Allen	34.6		43.2	✓	43.5	✓

Table 6: Estimated vote shares for candidates in races that featured losing minority candidates of choice. Actual election returns are reported "At-large" total votes. Shaded rows indicate the black candidate of choice. * indicates minority candidate.

Qualifications

I am Professor of Law and Public Policy at the University of Connecticut with a joint appointment in the School of Law and the Department of Public Policy. During 2018-2019, when I did much of my work, I was a Visiting Professor at the Harris School of Public Policy Studies at the University of Chicago. From 2016-2017, I was a Visiting Fellow at the Center for the Study of American Politics at Yale University.

I received my Ph.D. in Jurisprudence and Social Policy from the University of California, Berkeley in 2013. I also earned a J.D. from UC Berkeley in 2011, and a Master of Public Policy degree from UC Berkeley in 2008. In addition to my formal graduate training in statistics and empirical methods I also participated in the Empirical Implications of Theoretical Models Conference at UC Berkeley (2010) and I attended the Workshop on Research Design for Causal Inference at Northwestern University (2012). I have also worked as a law clerk at the Lawyers' Committee for Civil Rights of the San Francisco Bay Area (2011), a researcher for the Pew Center on the States' Military and Overseas Voting Reform Project (2011) and a researcher for the Early Voting Information Center (2009-2010).

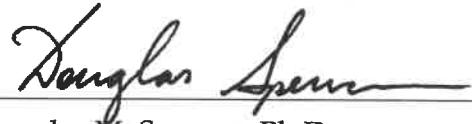
My expertise is the empirical analysis of public law, with an emphasis on campaign finance and voting rights. My scholarship has been published in the peer-reviewed *Election Law Journal* and *Journal of Law & Courts* as well as in the *Columbia Law Review*, *California Law Review*, *Indiana Law Journal*, *University of Illinois Law Review*, and the *U.C. Irvine Law Review*. I have presented my research at the Conference on Empirical Legal Studies, the Public Economy and Public Law Conference, the American Political Science Association annual meeting, the American Law & Economics Association annual meeting, and other local, state, and national academic conferences.

I teach Constitutional Law (graduate and undergraduate), Election Law, Introduction to Public Policy and Administration, and a seminar on The Supreme Court and Public Policy. My full curriculum vitae is appended to this report.

I will be compensated by the Campaign Legal Center for my work in this case at a rate of \$250 per hour.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Date: July 15, 2019

A handwritten signature in cursive script, reading "Douglas Spencer", written in black ink.

Douglas M. Spencer, Ph.D.
Professor of Law & Public Policy
University of Connecticut

Appendices

A. Technical Note on Merging Census and Election Data

B. RPV Analysis for Elections with George Furman

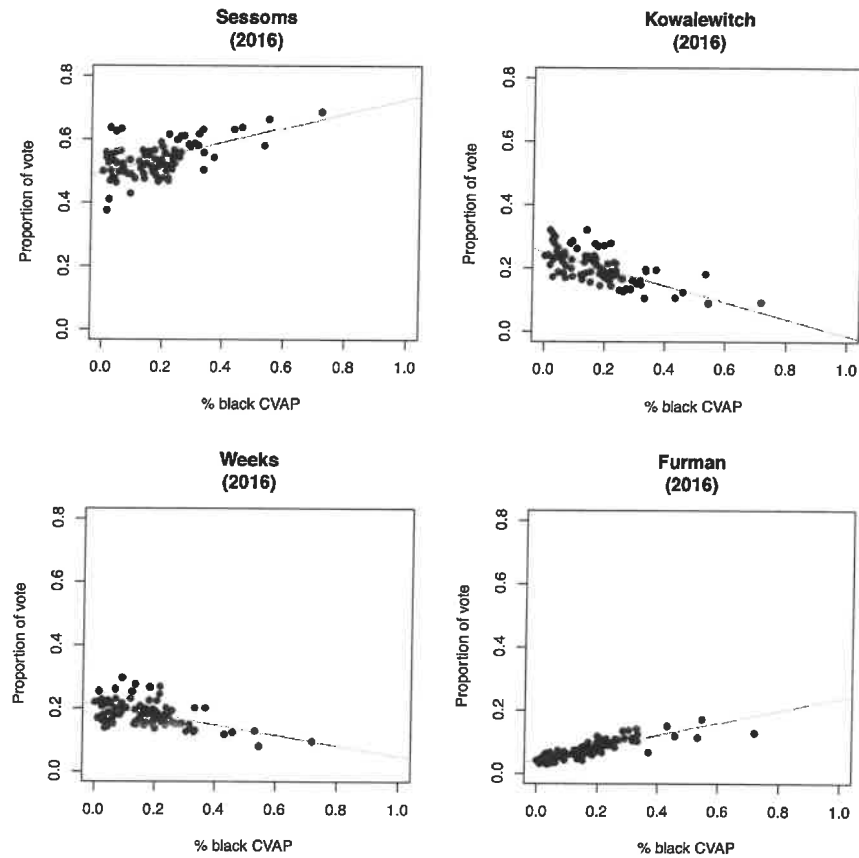
C. Curriculum Vitae

A. Technical Note: Merging Census and Elections Data

One of the most challenging aspects of racially polarized voting analysis is the geographic mismatch of available demographic and political data. Demographic information, such as the size of citizen voting age population (CVAP), are reported at the level of census blocks. Election returns are reported at the level of voting district or precinct. Unfortunately, these two geographies do not perfectly overlap, so merging the data require some modeling choices. For my analysis, I performed a "spatial join" that aggregated data from census blocks in proportion to the area of each block within each district.¹¹ If a census block is completely within the boundaries of a voting precinct then the entire count of CVAP is added to that precinct's total. If a census block is split between two precincts—for example, 60% in one precinct and 40% in another precinct—then I assign 60% of the CVAP to the former and 40% of the CVAP to the latter. I outline the mechanics of the spatial join in the script file "vabeach_vtd.R".

¹¹For more information about various approaches to geographic spatial joins, see Brian Amos et al. *When Boundaries Collide: Constructing a National Database of Demographic and Voting Statistics*, 81 PUB. OPINION Q. 385 (2017).

B. RPV Analysis for Elections with George Furman



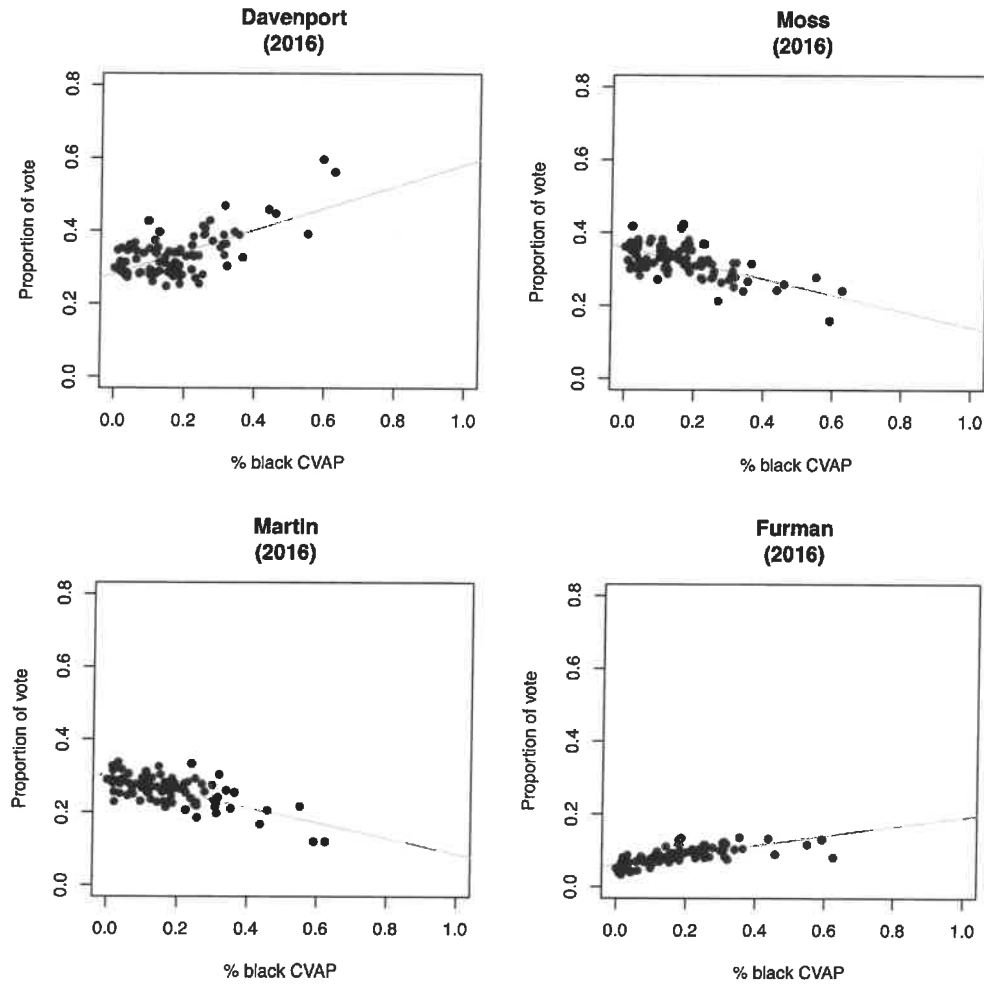
George Furman

	Homogeneous precincts (⊙)	Ecological regression (Δ)	Ecological inference (×)
Black support (%)	13.7*	23.7*	26.5*
All minority support (%)**	13.6*	18.1*	18.1*
White support (%)	3.9	3.0	3.0

* Estimated black support is statistically significantly different from estimated white support ($p < 0.01$).

** All minority support includes Hispanic, Asian, and other minority groups.

Figure 17: Estimated support for Will Sessoms for the 2016 mayoral seat. The race featured three white males and a black male, George Furman. Mr. Furman earned 7.6% of the vote and was not the minority candidate of choice. Support for Mr. Furman was less than 30%. Will Sessoms, who won with 54.3% of the vote was the preferred candidate among all groups of voters.



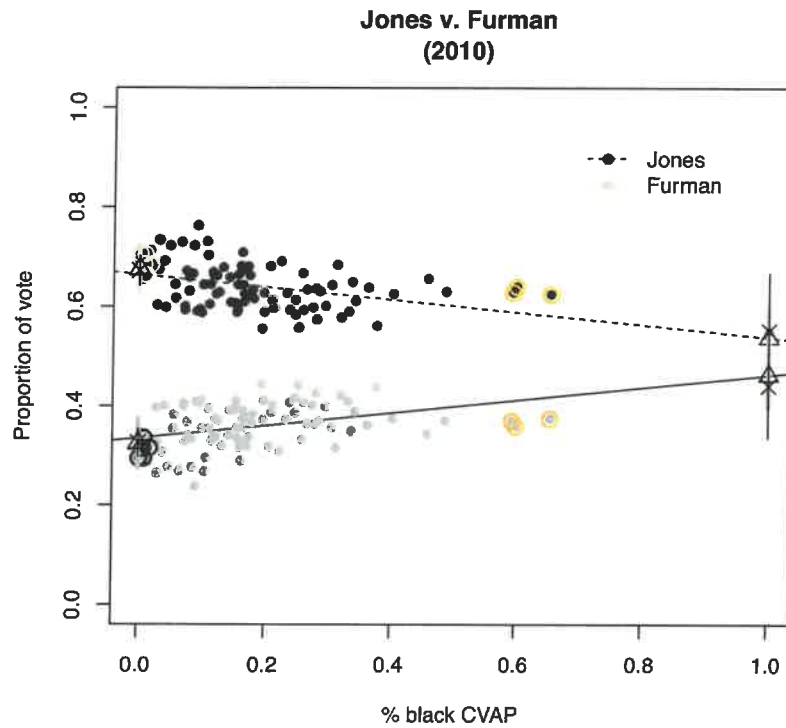
Ben Davenport

	Homogeneous precincts (⊙)	Ecological regression (Δ)	Ecological inference (×)
Black support (%)	51.5	58.2*	48.5*
All minority support (%)**	46.9	45.9*	39.5*
White support (%)	32.1	28.1	30.0

* Estimated black support is statistically significantly different from estimated white support ($p < 0.01$).

** All minority support includes Hispanic, Asian, and other minority groups.

Figure 18: Estimated support for candidates running for an at-large seat in 2014. The race was contested by three white men and one black male. Ben Davenport (a white male) was the minority candidate of choice and defeated the incumbent by just 194 votes out of more than 146,000 votes cast. Mr. Furman, a black male, earned 7.6% of the overall vote, with an estimated support among black voters of approximately 20%.



	Homogeneous precincts (⊙)	Ecological regression (Δ)	Ecological inference (×)
Louis Jones			
Black support (%)	63.2*	53.8*	55.2
All minority support (%)**	63.1	56.2	56.6
White support (%)	68.9	67.5	67.3
George Furman			
Black support (%)	36.8*	46.2*	45.5
All minority support (%)**	36.9	43.8	43.7
White support (%)	31.1	32.5	32.8

* Estimated black support is statistically significantly different from estimated white support ($p < 0.01$).

** All minority support includes Hispanic, Asian, and other minority groups.

Figure 19: Racial voting patterns for Louis Jones (white male) and George Furman (black male) for the Bayside city council seat in 2010. White voters strongly preferred Jones (67-33%) who was the incumbent since 1990. The estimated support among black voters is more ambiguous. Black voters were more likely to support Mr. Jones, but only by a few points. According to the ecological inference models, support for Mr. Jones among black voters was $55.7\% \pm 13\%$ while support for Mr. Furman was $45.1\% \pm 16\%$.

C. Curriculum Vitae

See attached.

Douglas M. Spencer

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ACADEMIC POSITIONS

University of Connecticut

Professor of Law and Public Policy, 2017–

Associate Professor of Law and Public Policy, 2013–2017

- *Courses*: Constitutional Law, Election Law, Introduction to Public Policy (MPA Program), How to Fix Elections: Election Administration in the United States (undergraduate Poli. Sci.)

University of Chicago, *Visiting Professor*, Harris School of Public Policy, 2018-2019

- *Courses*: The Supreme Court & Public Policy (grad); Constitutional Law (undergrad)

Yale University, *Visiting Scholar*, Center for the Study of American Politics, 2016-2017

EDUCATION

University of California, Berkeley

Ph.D., Jurisprudence and Social Policy, 2013

Committee: Robert D. Cooter, Kevin Quinn, and Henry E. Brady

J.D., Berkeley Law, 2011

M.P.P., Goldman School of Public Policy, 2008

Columbia University

B.A., Philosophy, *magna cum laude*, 2004

PUBLICATIONS

- Bertrall L. Ross II & Douglas M. Spencer. 2019. "Passive Voter Suppression," *Northwestern University Law Review* (forthcoming).
- Guy-Uriel Charles & Douglas M. Spencer. 2019. "The Law of Gerrymandering," *Political Geometry*, (ed. Moon Duchin et al.) Boston, MA: Birkhauser Science (forthcoming).
- Paul S. Herrnson, Douglas M. Spencer & Jennifer Heerwig. 2018. "The Impact of Organizational Characteristics on Super PAC Financing," in *The State of the Parties 2018*, (ed. John Green et al.) New York: Rowman & Littlefield, pp. 248-262.
- Douglas M. Spencer. 2017. "[Corporations as Conduits: A Cautionary Note About Regulating Hypotheticals](#)," *Stetson Law Review*, 47(2), pp. 225-258 (invited symposium).
- Abby K. Wood and Douglas M. Spencer. 2016. "[In the Shadows of Sunlight: The Effects of Transparency on State Political Campaigns](#)," *Election Law Journal*, 15(4), pp. 302-329.
- Christopher S. Elmendorf and Douglas M. Spencer. 2015. "[Administering Section 2 of the VRA After Shelby County](#)," *Columbia Law Review*, 115(7), pp. 2143-2217.

- Gabriel J. Chin & Douglas M. Spencer. 2015. "Did Multicultural America Result From a Mistake? The 1965 Immigration Act and Evidence From Roll Call Votes," *U. Illinois Law Review*, 2015(3), pp. 1239-58.
- Chris Elmendorf and Douglas M. Spencer. 2014. "The Geography of Racial Stereotyping: Evidence and Implications for VRA 'Preclearance' After Shelby County," *California Law Review*, 102(5), pp. 1123-80.
- Sean Farhang and Douglas M. Spencer. 2014. "Legislating Incentives for Attorney Representation in Civil Rights Litigation," *Journal of Law & Courts*, 2(2), pp. 241-71.
- Douglas M. Spencer and Abby K. Wood. 2014. "Citizens United, States Divided: An Empirical Analysis of Independent Political Spending," *Indiana Law Journal*, 89(1), pp. 315-72.
- Christopher S. Elmendorf and Douglas M. Spencer. 2013. "Are Ballot Titles Biased? Partisanship and Ideology in California's Supervision of Direct Democracy," *U.C. Irvine Law Review*, 3(3), pp. 511-49 (invited symposium).
- Douglas M. Spencer and Zachary S. Markovits. 2010. "Long Lines at Polling Stations? Observations from an Election Day Study," *Election Law Journal*, 9(1), pp. 3-17.

IN PROGRESS

Working Papers

(under review)

Mind the (Participation) Gap: Vouchers, Voting, and Visibility

(with Chris Elmendorf & Abby Wood)

Campaign Finance and the Rhetoric of Corruption: A Conjoint Experiment

(with Alexander Theodoridis)

(under review)

Super PAC Strategies and Tactics

(with Jay Goodliffe and Paul Herrnson)

The Impact of Associational Ties on the Financing of Super PACs

(with Jay Goodliffe, Jen Heerwig, and Paul Herrnson)

Works in Progress

Social Media and Racial Appeals in Political Campaigns

The federal Voting Rights Act creates a special duty on state and local governments to accommodate minority voters and ensure that they have a fair opportunity to elect candidates of their choice in jurisdictions whose politics have been shaped by racial discrimination and conflict. Courts have long treated "racial campaign appeals" as an important indicator of such discrimination and conflict. But to date, analysts have not been able to create objective measures of the extent to which a campaign's messaging appeals to racial preferences. Advances in face recognition and sentiment make it possible to create measures of racial campaign appeals that do not depend on contested judgments about the social meaning of particular phrases or sentences. Our measure of racial appeals will be very timely. Given the intensity of modern partisanship and the pervasiveness of motivated reasoning, it seems very unlikely that Democratic and Republican judges will be able to decide questions about racial campaign appeals impartially and consistently if their decisions must turn on interpreting and then attributing significance to one or another statement by a candidate. Because our measure is objective and does not require judges to interpret the social meaning of particular campaign statements, it should help judges who have very different prior beliefs about racism in the United States today to reach similar results in similar cases.

Democratic Responsiveness in State Policy Implementation (with Miranda Yaver)

A question at the core of American politics and policymaking is to what extent elected representatives act in ways that reflect the preferences of the electorate to which they are accountable. This issue of democratic responsiveness has been evaluated in depth in the context of legislative behavior and the role of public opinion in shaping legislators' votes. An important limitation to the existing studies is their failure to disentangle de facto and de jure policymaking at the state level. The practice of measuring policy adoptions is common, with the observation that once adopted, policies are rarely appealed. Yet policies may in fact stay "on the books" while changing with respect to the nature and vigor of their actual enforcement given developments in public opinion or the partisan configuration in which the relevant institutions are operating. We seek in this paper to remedy what we see as an important oversight in the democratic responsiveness literature to date, and work to answer the following core question: To what extent, and under what conditions, does public opinion shape the vigor of state-level policy enforcement? We evaluate this within the policy domains of the death penalty and hate crimes, but hope to extend to additional policies in future work.

Other Writing

["How Surveys Can Strengthen the Voting Rights Act."](#)

SSN KEY FINDINGS BRIEF, May 2017.

["Affirmative Action Setback in the Supreme Court Could Be a Boost to Voting Rights."](#)

THE NEW REPUBLIC, April 29, 2014 (with Chris Elmendorf).

["Fears Over the Impact of Citizens United May Be Misplaced."](#)

LONDON SCHOOL OF ECONOMICS USAPP BLOG, January 27, 2014 (with Abby Wood).

["New Tools for Bail In: Using the Geography of Discrimination to Reconstruct Preclearance Judicially."](#)

ELECTION LAW BLOG, July 25, 2013 (with Chris Elmendorf).

["How to Save the Voting Rights Act: Here's the best option for Congress."](#)

SLATE, July 17, 2013 (with Chris Elmendorf).

["Are the Covered States 'More Racist' than Other States?"](#)

ELECTION LAW BLOG, March 4, 2013 (with Chris Elmendorf).

PRESENTATIONS

Conferences, Symposia and Academic Workshops

- 2018 Conference on Empirical Legal Studies. University of Michigan. Poster presentation. "Mind the (Participation) Gap: Vouchers, Voting, and Visibility." November 9.

Northeastern Political Science Association Annual Meetings. Montreal, Canada. Paper presentation. "Are Super PACs the Downfall of Transparent Campaigns? Funding Sources and Their Impact on Campaign Activity." November 8.

American Political Science Association Annual Meetings. Boston MA. Paper presentation. "The Electoral Boogeyman: Beneficiaries and Targets of Super PAC Spending." August 31.

Political Economy & Public Law Conference, University of Connecticut School of Law. Discussant for Dane Thorley, "The Limitations of Procedure: A Randomized Field Experiment Testing the Efficacy of Judicial Recusal and Disclosure." June 16.

American Law & Economics Association, Boston University. Paper presentation, "Mind the (Participation) Gap: Vouchers, Voting, and Visibility." May 12.

Midwest Political Science Association, Chicago, IL. Paper presentation, "Mind the (Participation) Gap: Vouchers, Voting, and Visibility." April 3.

- 2017** American Political Science Association, San Francisco, CA. Paper presentation, "The Impact of Associational Ties on the Financing of Super PACs." September 1.
- Political Economy and Public Law Conference, University of Southern California Gould School of Law. Paper presentation, "Campaign Finance and the Rhetoric of Corruption: A Conjoint Experiment." April 16.
- Symposium: Can Corporations Be Good Citizens? How Corporate Law, Litigation, Lobbying and Money in Politics Intersect, Stetson Law School, Gulfport, FL. Paper presentation, "Corporations as Conduits: A Cautionary Note About Regulating Hypotheticals." March 24.
- 2016** Conference on Money and the First Amendment, University of Colorado, Boulder. Paper presentation, "Campaign Finance and the Rhetoric of Corruption." April 15.
- Midwest Political Science Association, Chicago, IL. Paper presentation, "Minority Turnout and the Political Incentives to Discriminate after *Shelby County*." April 8.
- 2015** Conference on Empirical Legal Studies, Washington University in St. Louis. Discussant for Marc Meredith and Michael Morse, "Discretionary Disenfranchisement: The Case of Legal Financial Obligations." October 30.
- Empirical Studies in Public Law Workshop, Hebrew University, Jerusalem. Paper presentation, "Administering the Voting Rights Act After *Shelby County*." May 25.
- Center for Law and Social Science Workshop, University of Southern California. Paper presentation, "Administering Section 2 of the VRA After *Shelby County*." March 30.
- Workshop on Voting Rights, Ash Center for Democratic Governance and Innovation, Harvard Kennedy School. Paper presentation, "Administering Section 2 of the VRA After *Shelby County*." March 27.
- American Association of Law Schools, Washington DC. Paper presentation, "Multilevel Regression with Poststratification: Implications for Legal Scholarship." (Winner of the Law & Social Science Section's call for papers on "Extreme Empirical Methods.") January 6.
- 2014** Conference on Empirical Legal Studies, Berkeley, CA. Paper presentation, "After *Shelby County*: Getting Section 2 of the VRA to Do the Work of Section 5." November 7.
- Faculty Workshop, UConn School of Law, Hartford, CT. Paper presentation, "After *Shelby County*: Getting Section 2 of the VRA to Do the Work of Section 5." October 8.
- Southeastern Association of Law Schools, Amelia Island, FL. Paper presentation, "A Precautionary Tale From State Campaign Finance." August 5.
- Political Economy and Public Law Conference, University of Rochester. Paper presentation, "The Geography of Discrimination: Evidence and Implications for Voting Rights After *Shelby County*." May 29.
- Midwest Political Science Association, Chicago, IL. Paper presentation, "Administering Section 2 of the VRA After *Shelby County*." April 5.
- 2013** Political Science Faculty Colloquium, University of Connecticut. Paper presentation, "The Geography of Racial Stereotyping: Implications for VRA 'Preclearance' After *Shelby County*." October 28.
- Cooperative Congressional Election Survey (CCES) Conference, Sundance, UT. Paper presentation, "The Geography of Discrimination in Voting: MRP Meets the VRA." May 24.
- 2012** Faculty Workshop, UConn School of Law. Paper presentation, "Citizens United, States Divided: Evidence of Elasticity in Independent Expenditures." November 12.

Conference on Empirical Legal Studies, Stanford, CA. Paper presentation, "In the Shadows of Sunlight: Measuring the Effects of Transparency on State Political Campaigns." November 10.

Faculty Workshop, UC Davis School of Law. Paper presentation, "Citizens United, States Divided: Evidence of Elasticity in Independent Expenditures." October. 25.

Faculty Workshop, George Mason Law School. Paper presentation, "Citizens United, States Divided: Evidence of Elasticity in Independent Expenditures." October 23.

Law & Economics Workshop, Berkeley Law. Paper presentation, "Citizens United, States Divided: Evidence of Elasticity in Independent Expenditures." September 17.

Symposium on Nonpartisan Election Administration, Redistricting, and Campaign Finance, Irvine, CA. Paper presentation, "Are Ballot Titles Biased? Partisanship in California's Supervision of Direct Democracy." September 13.

Law & Society Association, Honolulu, HI. Paper presentation, "Citizens United, States Divided: Evidence of Elasticity in Independent Expenditures." June 6.

American Law & Economics Association, Stanford, CA. Paper presentation, "Economic Recovery Rules and Attorney Representation in Job Discrimination Litigation." May 18.

Midwest Political Science Association, Chicago, IL. Paper presentation, "Regulate or Delegate? Implications for Election Law." April 14.

Midwest Political Science Association, Chicago, IL. Paper presentation, "Citizens United, States Divided: Evidence of Elasticity in Independent Expenditures." April 13.

Western Empirical Legal Studies Conference, UCLA School of Law. Paper presentation, "Economic Recovery Rules and Attorney Representation in Civil Rights Litigation." February 18.

- 2011** American Political Science Association, Seattle, WA. Paper presentation, "Citizens United, States Divided? The Interaction of Transparency and Spending in State Elections." September 3.

Law & Society Association, San Francisco, CA. Paper presentation, "Economic Recovery Rules and Attorney Representation in Civil Rights Litigation." June 3.

Midwest Political Science Association, Chicago, IL. Paper presentation, "Constitutions and Close Elections." April 1.

- 2010** Conference on Empirical Legal Studies, Yale Law School. Poster, "Constitutions and Credible Commitments: A Modern Day Investment Scheme?" November 5.

- 2009** Midwest Political Science Association, Chicago, IL. Paper presentation, "Long Lines at Polling Stations? Observations from an Election Day Field Study." April 3.

PROFESSIONAL ACTIVITIES

Referee *Journal of Empirical Legal Studies* *Election Law Journal*
 Supreme Court Economic Review *Electoral Studies*
 Political Research Quarterly *American Politics Research*
 Law & Social Inquiry

Expert witness (rebuttal on behalf of Colorado Secretary of State) in defense of state campaign finance law. Case: *Holland v. Williams*, No. 16-cv-00138-RM-MLC (2018)

Chair, Section on Law and Social Sciences, *Association of American Law Schools*, 2016-2017

Expert witness (consulting) for Voting Rights Act, *Chicago Lawyers' Committee for Civil Rights*, 2015

Researcher, *Pew Center on the States' Military and Overseas Voting Reforms Project*, 2011

Researcher, *Pew Center on the States / Early Voting Information Center*, 2009-2010

HONORS, AWARDS, & FELLOWSHIPS

Research Grant (\$14,000) from the MIT Election Data and Science Lab (2017)

Excellence in Teaching Award, UConn Department of Public Policy, 2013, 2014, 2015

Research Grant (\$2,000) from the Berkeley Experimental Social Science Laboratory, 2012

Berkeley Empirical Legal Studies Fellow, 2010-2011

Berkeley Law and Economics Fellow, 2009-2010

Research Grant (\$4,000) from the Pew Center on the States, 2008

Research Grant (\$15,000) from the UC Berkeley Survey Research Center, 2007-2008

Outstanding Graduate Student Instructor, UC Berkeley, 2007 & 2011

Outstanding Graduate Student Instructor, UC Berkeley Political Science Department, 2007

NON-ACADEMIC EMPLOYMENT

Treasurer, Chris Mattei for CT Attorney General campaign, 2017-2018

Law Clerk, Lawyers' Committee for Civil Rights of the San Francisco Bay Area, Summer 2011

Researcher, Pew Center on the States, Military and Overseas Voting Reforms Project, 2011

Program Assistant, International Finance Corporation (World Bank Group), Washington, DC, 2005-2006

Congressional Liaison, United States Department of the Interior, Washington DC, 2005

Election Monitor, Asian Network for Free Elections, Thailand National Election, February 2005

Chief Interpreter, Russian National Olympic Delegation, 2002.

Response to Report by Dr. Quentin Kidd

Submitted by:
Douglas M. Spencer, Ph.D.

Holloway v. City of Virginia Beach
No. 2:18-cv-00069

August 26, 2019

Contents

Summary	2
1 Minority political cohesion	4
2 Minority coalitional voting	6
3 Other	10
Probative elections	10
My Data	11
Source of CVAP	11
Precinct files	12
At-large elections in 2018 and 2014	12
Appendices	14
Correspondence with Virginia Beach Center for GIS	14
Updated 2018 and 2014 At-Large Election Estimates	15
2018 Election Performance in Illustration Districts 1 and 2	16



Douglas M. Spencer

August 26, 2019

Summary

Between 2008-2018 there were sixteen opportunities for a black candidate to win a seat on the Virginia Beach City Council.¹ In ten of these cases the black candidate was the candidate of choice for minority voters. Seven of these ten candidates lost due to white bloc voting. Three white candidates were also candidates of choice for minority voters, and one lost her election due to white bloc voting. In all, of the 13 candidates of choice, white and black, eight lost their elections due to oppositional voting by white voters. In other words, minority-preferred candidates have usually (61.5%) lost due to white bloc voting, *Thornburg v. Gingles*, 478 U.S. 30, 56 (1986).

Minority political cohesion. Minority voters are cohesive when their most preferred candidate earns enough minority support to win an election. Dr. Kidd misinterprets the *Gingles* factors as requiring that candidates earn more than 50% support from minority voters to be considered a candidate of choice. At no time has the Court defined cohesiveness as 50% support or more among minority voters. In fact, in multi-member districts the Court has acknowledged that the degree of support may be lower when many candidates are running. The *Gingles* factors merely require plaintiffs to provide evidence that candidates with enough minority support to win their election usually end up losing due to white bloc voting. Voting patterns in Virginia Beach clearly meet this standard.

Minority coalitional voting. Minority groups are considered a coalition when they share candidate preferences and their individual group support is sufficient to elect their preferred candidate. Coalitions are not defined by groups sharing more than 50% support for candidates, nor by groups sharing an exactly equal level of support for candidates. In my report I identified 13 candidates whose support from minority voters was sufficient for their election, eight of whom were defeated due to oppositional white bloc voting. I provide further evidence that the minority support for six of these eight candidates represents support from more than just one racial minority group.

Responses to Dr. Kidd

- **Probative elections.** My analysis is limited to elections that are probative of the *Gingles* factors. As is customary, I begin with the assumption that minority candidates provide a setting that is more probative of the question whether racially polarized voting is preventing minority-preferred candidates from winning. This does not mean that minority candidates exclusively are probative, but it serves as my starting point.

¹As I explained in my original report and reiterate below, I exclude George Furman from my analysis because in three races against seven different candidates, Mr. Furman always came in last and never earned the support of minority voters. Elections featuring Mr. Furman do not provide a setting that is probative of the *Gingles* factors and are dropped from the analysis throughout.

Douglas M. Spencer

August 26, 2019

- **Data clarification**

- * Source of CVAP. Contrary to Dr. Kidd's assertion, I do not rely on Anthony Fairfax's census block data for my racially polarized voting analysis. My analysis is based on Citizen Voting Age Population (CVAP) estimates at the block group level (not block level) that I downloaded directly from the Census.
- * Precinct files. I rely on the Census TIGER/Line VTD file of 94 precincts for my analysis of elections between 2008-2016. Note that I must drop four precincts in 2016 for which I am unable to merge in CVAP data. I rely on the current shapefile of 100 precincts for my analysis of the 2018 election.
- * Vote totals for at-large elections. Dr. Kidd is correct that my vote totals for at-large seats in 2018 and 2014 (but not 2010) sum to 100% when they should sum to 200%. This was a simple error with no effect on my conclusions as the transformation applies to all estimates for all candidates. Although all estimates—homogeneous precincts, ecological regression, and ecological inference—should be doubled, the relationship between candidates remains unchanged. In addition, the 2014 at-large election includes Furman as a candidate. As I noted above, my analysis treats the Furman race as non-probative, further minimizing the impact of any error.

Douglas M. Spencer

August 26, 2019

1 Minority political cohesion

Minority voters are cohesive when their most preferred candidate earns enough minority support to win an election. At no time has the Supreme Court defined cohesiveness as 50% or more among minority voters. In multi-member districts the Court has even acknowledged that the degree of support may be lower when multiple candidates are running.

The second and third Gingles factors direct lower courts to focus their attention on both minority and white voting practices, yet the Supreme Court has not established a strict definition of minority political cohesion, nor has the Court provided a numerical cutoff to determine when majority voting is sufficient for defeating minority-backed candidates. In fact, the Court in *Gingles* acknowledged that “there is no simple doctrinal test for the existence of legally significant racial bloc voting,” 478 U.S. at 58. Instead, the Court noted that “the degree of racial bloc voting that is cognizable as an element of a §2 vote dilution claim will vary according to a variety of factual circumstances,” *Id.* at 57-58, including “the number of seats open and the number of candidates,” *Id.* at 56.

Furthermore, when discussing the evidence necessary to prove minority political cohesion, the Court in *Gingles* held that “showing that a **significant number** of minority group members usually vote for the same candidates is one way of proving the political cohesiveness necessary to a vote dilution claim,” 478 U.S. at 56 (emphasis added). At no time has the Court defined cohesiveness as 50% support or more among minority voters. In fact, in multi-member districts the Court has acknowledged that the degree of support may be lower when multiple candidates are running. The Gingles factors require plaintiffs to provide evidence that candidates with enough minority support to win their election “usually” end up losing due to white bloc voting. Voting patterns in Virginia Beach clearly meet this standard.

In his August 12, 2019 response to my report on racially polarized voting in Virginia Beach, Dr. Quentin Kidd challenged some of my findings by repeatedly relying on the incorrect assumption that minority voters are not cohesive when their support for minority candidates dips below 50%. For example:

- Page 3 (repeated on page 5): “Less than a third of the elections analyzed by Spencer resulted in an African American candidate who **received a majority support** among minority voters...”
- Page 8: “It is thus likely that Rouse. . .did in fact **receive a majority of the black vote** in 2018.”
- Tables 1-3 all distinguish between candidates who “received cohesive support” and those who “did not receive cohesive support.” The distinguishing feature is support among minority voters at the 50% level or higher.

Douglas M. Spencer

August 26, 2019

- Page 10: “Since 2012, two of five African American candidates who **received majority support among African American voters** lost their respective races...”
- Page 10: “...one of four African American candidates who **received majority support among minority voters** lost...”
- Page 10: “...all four African American candidates who **received majority support among minority voters**...”
- Page 10, fn 10: “Cabiness is included in Table 4 but is removed from Table 5, having received according to Spencer’s analysis **51.7% support from black voters** but only 37% of minority voters overall.”
- Page 13: “...if Spencer considered only Jackson or Flores to have **received majority black support**, then his 10th case might be Cabiness in the 2014 Rose Hall district race, who **got 51.7% of the African American vote**. However, like Jackson and Flores, Cabiness was not the choice of minority voters, attracting only 37.0% of their votes.”
- Page 13: “...no more than seven candidates **received a majority of the minority vote**...”
- Page 13, fn 13: “...it is possible (likely) that in 2018 Rouse, who won, **received a majority of the minority vote**.”
- Page 18: “...when Spencer shows a **majority of African Americans supporting** a candidate but a **majority of All Minorities** failing to support that candidate.”
- Table 9 distinguishes between Bullock (2010 Princess Anne) whose support among Asian and Hispanic voters exceeded 50% (according to Dr. Kidd) and four candidates whose support among Asian and Hispanic voters fell short of 50%. Because Bullock exceeds the 50% threshold, Dr. Kidd writes that he “is the only candidate on this list who manages to be the preferred candidate of African American AND Asian + Hispanic voters.”
- Page 22: “Table 10 is a recreation of Table 7 above with changes to reflect instances in which support from Asian + Hispanic voters **failed to reach a majority**.”

Dr. Kidd’s reliance on the idea that minority voters are only cohesive under §2 of the VRA when their support for candidates exceeds 50% is mistaken and results in an unreliable taxonomy of candidates throughout his report. His assumption is only persuasive when just two candidates are running as it would take more than 50% support for a candidate to win. Indeed, in every probative race in Virginia Beach featuring two candidates between 2008-2018, the candidate of choice received more than 50% support from minority voters.² However, as the number of candidates increases the level of minority support necessary to win an election decreases, and most of the probative elections in Virginia Beach involve more than two candidates. Thus, the inquiry into racially polarized voting is contextual and, as the Supreme Court in *Thornburg v. Gingles* explicitly noted, “the degree of bloc voting which constitutes the threshold of legal significance will vary from

²The four probative races that featured two candidates between 2008-2018 were for the Kempsville seat in 2016, the Princess Anne seat in 2010 and 2014, and the Bayside seat in 2010.

Douglas M. Spencer

August 26, 2019

district to district,” 478 U.S. at 55-56.

This context explains why a candidate that received 37.0% support from minority voters in one race (James Cabiness in the 2014 Rose Hall special election) was the minority candidate of choice while a candidate that received 34.3% in another race (Pieri Burton in the 2014 Princess Anne election) was not. The former race was an open seat that featured four candidates while the latter race featured a single challenger to the incumbent.

2 Minority coalitional voting

Minority groups are considered a coalition when they share candidate preferences and their individual group support is sufficient to elect their preferred candidate. Coalitions are not defined by groups sharing more than 50% support for candidates, nor by groups sharing an exactly equal level of support for candidates.

As I note in my original report, the population of Hispanic and Asian voters is not large enough to generate precise estimates of candidate preference using traditional statistical methods. As of 2017, the citywide Hispanic CVAP in Virginia Beach is 5.9%, and there are only two precincts with more than 12% Hispanic CVAP—Magic Hollow (14.6%) and Brandon (14.5%). The Asian population is more segregated: although the citywide Asian CVAP is 5.4% there are five precincts with more than 15% Asian CVAP and one (Dahlia) with 21.6% Asian CVAP. Nevertheless, these precinct-level populations are simply too small to draw reliable conclusions about the voting preferences of these groups independently.³ As a result, I did not generate independent estimates for these groups.⁴

The most reliable method for interpreting the candidate preferences of black, Hispanic, and Asian voters is to estimate their joint vote share, which I reported in my original report in a category called “All Minority.”⁵ Black, Hispanic, and Asian voters combined generate estimates that are statistically significantly different from white voting, which then makes a comparison between these groups possible. Does the coalition of black, Hispanic, and Asian voters strongly support candidate X? Are white voters strongly opposing

³Quentin Kidd, “Expert Report of Dr. Quentin Kidd: Response to Spencer and Lichtman,” (hereinafter Kidd Report), p. 5 (“Plaintiffs fail to analyze Hispanic and Asian voters independent of African American voters.”).

⁴Note that I have not generated estimates for races included Ron Villanueva for a similar reason. In footnote 8 of my original report I expressed my intention to evaluate races when Mr. Villanueva was on the ballot. Mr. Villanueva is a former member of the Virginia Beach City Council who was elected to represent District 21 in the Virginia House of Delegates. District 21 comprises just 15 of Virginia Beach’s 100 precincts, meaning there are too few data points to generate good ecological inference estimates.

⁵My category of “All Minority” also included all nonwhite voters. The percent of voters that are not black, Hispanic, or Asian is less than 2% of each precinct. The ecological inference models require that racial percentages sum to 1, which necessitates comparing white voting to all nonwhite voters.

Douglas M. Spencer

August 26, 2019

candidate X? These questions are difficult to answer if voting preferences between all of these groups are statistically indistinguishable.

Dr. Kidd criticizes my approach by posing a hypothetical: what if the coalitional support for a candidate is driven by extreme support among black voters that masks weak support among Hispanic and Asian voters? Kidd provides the following example:

	Black	Hispanic	Asian	White	Total
Candidate A	9	1	1	4	15
Candidate B	1	4	4	16	25
	10	5	5	20	40

In Kidd's example above, a category that combines black, Hispanic, and Asian voters will identify Candidate A as the minority candidate of choice with 73.3% support (11 of 15 votes), even though both Hispanic and Asian voters strongly preferred Candidate B by a 4-to-1 margin.

However, as I show below, on the whole there is not evidence that minority voting is fractured. To the contrary, the evidence suggests that the voting preferences of black, Hispanic, and Asian voters are not distinguishable from each other.

In Table 1, I present a summary of minority support for the thirteen candidates (ten black, three white) that I identified as minority candidates of choice in my report. In 11 of the 13 cases, I find that coalitional voting was sufficient enough for minority-preferred candidates to have been elected in the absence of white bloc voting. In just two of the 13 cases (Cabiness in 2014 and Jackson in 2010) I find that minority support was likely not due to coalitional voting.

For all but one of the 13 candidates, support from black voters was sufficient for the candidate to have been elected in the absence of white bloc voting. Given the large black population in Virginia Beach, the estimated support of black voters is statistically significantly higher than the threshold necessary for each candidate to win his/her election. The estimates for Hispanic and Asian voters are much noisier due to smaller populations. Consider the case of Aaron Rouse, a black male candidate who won an at-large seat in 2018. In order to have won an at-large seat in 2018 a candidate needed to earn at least 45.2% of the vote. Support among black voters exceeded 70%, plus or minus 6%, meaning we can be confident that black support exceeded the threshold of 45.2%. By contrast, support among Asian voters is estimated to be 53.0% \pm 15.24. Thus, while the estimated vote share exceeded the threshold needed to win, the confidence interval is large enough that it is possible Asian support was not strong enough to help elect Mr. Rouse. Finally,

Douglas M. Spencer

August 26, 2019

Year	Seat	Candidate	Threshold to win	Support above threshold			Minority preferred?	Won?
				Black	Hispanic range	Asian range		
Minority candidates								
2018	At-large	Rouse	45.2	✓	✓	✓	Y	Y
2018	Centerville	Wooten	62.1	✓	✓	✓	Y	Y
2016	Kempsville	Ross-Hammond	59.4	✓	✓	×	?	N
2014	Rose Hall	Cabiness	48.3	✓	×	×	N	N
2012	Kempsville	Ross-Hammond	32.2	✓	✓	✓	Y	Y
2011	At-large	Sherrod	37.0	✓	✓	✓	Y	N
2010	At-large	Jackson	44.8	✓	×	×	N	N
2010	Princess Anne	Bullock	54.4	✓	✓	✓	Y	N
2008	At-large	Allen	44.1	✓	✓	✓	Y	N
2008	Kempsville	Flores	48.7	✓	✓	✓	Y	N
White candidates								
2018	At-large	White	45.2	✓	✓	×	?	N
2014	Princess Anne	Henley	76.7	✓	✓	✓	Y	Y
2010	At-large	Bellitto	44.8	×	✓	✓	?	Y

Table 1: Summary of minority support for candidates in races where at least one candidate was nonwhite. Minority support sufficient to have elected a candidate in the absence of white bloc voting is marked with a ✓. Because the population of Hispanic and Asian CVAP prevents precise estimates of candidate preference, support is marked with a ✓ when the null hypothesis that candidates did not receive support sufficient to be elected in the absence of white bloc voting is rejected.

the estimated support of Hispanic voters is 34%, suggesting that Mr. Rouse was less preferred than other candidates. However, the estimated Hispanic support has a confidence interval of $\pm 20.9\%$ meaning support among Hispanics could very well be *higher* than support among Asians. How do we make sense of this uncertainty?

To draw my conclusions, I adopt the logic of equivalence testing.⁶ The purpose of an equivalence test is to determine whether two or more groups are equivalent. Contrary to Dr. Kidd's assertion that I am merely assuming coalitional voting (Kidd Report p. 17), the baseline assumption of an equivalence test (usually referred to as the "null hypothesis") is that groups are *not* the same. I then compare the distribution of each minority group to determine whether there is evidence that the groups are, in fact, the same. If the groups are determined to be the same, then I reject the null hypothesis.

When using an equivalence test, we start by assuming that black, Hispanic, and Asian voters each prefer different candidates due to the logic of Dr. Kidd's hypothetical above. A traditional equivalence test compares the distribution of two datasets in the abstract and rejects the null hypothesis when there is at least 10% overlap between two distributions (for p-values less than the standard 0.05 level). An equivalence test in the context of coalitional voting compares the distributions of black, Hispanic, and Asian vote shares

⁶See Erin E. Hartman & F. Daniel Hidalgo. 2018. "An Equivalence Approach to Balance and Placebo Tests," *American Journal of Political Science*, 62(4): 1000-13.

Douglas M. Spencer

August 26, 2019

not in the abstract, but against the threshold needed for a candidate to win his/her election. In other words, even in the absence of overlapping distributions, two groups are deemed a coalition if they both exceed the threshold. For example, if the threshold for victory is 30% and the distribution of vote shares is 85% ($\pm 10\%$) for black voters, 40% ($\pm 8\%$) for Hispanic voters, and 28% ($\pm 6\%$) for Asian voters, we would reject the null hypothesis that these groups are different not because their distributions overlap each other, but there is at least 10% overlap with the threshold. This use of equivalence testing is admittedly permissive, though not so permissive as to reject the null hypothesis in every case. Indeed, there is facial validity to the results of this test as it identifies a fractured coalition in support of James Cabiness in 2014. Although support for Mr. Cabiness was strong among black voters, the Hispanic vote was split among all four candidates, and Asians coalesced around Mr. Cabiness's opponent.

In short, when estimating the exact voting preferences of minority voters the larger the population, the more precise the estimates. But we are not helpless in understanding patterns of support that implicate the Voting Rights Act. In my report I identified thirteen candidates whose support from minority voters was sufficient for their election, eight of whom were defeated due to oppositional white bloc voting. In this report I provide further evidence that the minority support for six of these eight candidates represented more than just one racial minority group.

On pages 19-23 of Dr. Kidd's report, Dr. Kidd argues that allegedly lower turnout among Hispanic and Asian voters "produces an over-estimate of the Asian + Hispanic support for black candidates." Kidd Report, p. 21. However, Dr. Kidd is incorrect that an alleged variation in turnout levels would erase the existence of a minority voting coalition. As shown above, there is substantial evidence of minority coalitional voting in Virginia Beach. Further, courts have entirely discounted analyses such as Dr. Kidd's. See *Montes v. City of Yakima*, 40 F. Supp. 3d 1377, 1405 (E.D. Wash. 2014) ("...the Ninth Circuit has prohibited district courts from discounting statistics about a minority group's candidate preferences on the basis of low voter turnout. See *Gomez*, 863 F.2d at 1416 ('The district court erred by focusing on low minority voter registration and turnout as evidence that the minority group was not politically cohesive.'). This makes good sense; 'if low voter turnout could defeat a section 2 claim, excluded minority voters would find themselves in a vicious cycle: their exclusion from the political process would increase apathy, which in turn would undermine their ability to bring a legal challenge to the discriminatory practices, which would perpetuate low voter turnout, and so on.' *Blaine Cnty.*, 363 F.3d at 911.").

Further, on pages 32-34 of my original report, I provided an analysis with reconstituted election results showing that the Illustrative Plan's Districts 1 and 2 would perform, in other words, allow minority voters an opportunity to elect candidates of their choice, "not just because of the sheer number of minority voters in each district, but because voting in these districts is less likely to be racially polarized. This means that black and other minority candidates are more likely to win in these districts, and are more likely to benefit from cross-over support from white voters." (Spencer Report, p. 32). In Appendix C of this report, I update the analysis on pages 32-34 of my initial report to include the 2018 election results, which again confirm that the Illustrative Plan's Districts 1 and 2 gives minority voters the opportunity to elect candidates of their choice.

3 Other

Probative elections

Dr. Kidd notes in footnote 6 on page 6 that "Spencer analyzes 17 contested elections with at least one African American candidate. However, between 2008-2018 there were 27 contested City Council elections in Virginia Beach. Despite Spencer and plaintiffs' concession that white candidates can be and have been minority candidates of choice, they do not conduct a full analysis of all contested City Council elections during this time." Dr. Kidd is correct that I do not present an analysis of all City Council elections between 2008-2018. My analysis is limited to elections that are probative of the *Gingles* threshold test. As is customary, I begin with the assumption that minority candidates provide a setting that is more probative of the question whether racially polarized voting is preventing minority-backed candidates from winning. This does not mean that minority candidates exclusively are probative, but it serves as my starting point. Fourteen black candidates ran for the City Council between 2008-2018, some more than once. One example of a repeat campaigner is Mr. George Furman who ran for the Bayside seat in 2010, for the at-large seat in 2014, and for Mayor in 2016. In all, Mr. Furman ran against seven different candidates and came in last every single time. More importantly for the current purpose, minority candidates preferred Mr. Furman's opponents every single time, meaning elections that featured Mr. Furman are not probative of potential racially polarized voting. Had Mr. Furman lost a single election, or earned a "significant number" of minority supporters (per *Gingles*⁷) then his candidacies would have raised probative questions about racial vote dilution. However, as a habitual campaigner with overall support in the single digits and minority support for his opponents, elections featuring Mr. Furman do not provide a setting that is probative of the *Gingles* factors and so I drop him from my analysis, although I included an analysis of his races in the Appendix of my original report in the spirit of full transparency.

⁷478 U.S. 30, 56 (1986).

Douglas M. Spencer

August 26, 2019

Of the remaining 13 candidates, three ran for office twice. Ms. Amelia Ross-Hammond was elected to the Kempsville seat in 2012 and then lost her re-election bid in 2014. Mr. James Cabiness ran for one of the at-large seats in 2010 and 2014, coming in last place both times. Unlike Mr. Furman above, however, Mr. Cabiness was the minority candidate of choice in 2014 (although he earned just 6.4% of the white vote), and in 2010 he ran against another popular black candidate (Mr. Andrew Jackson) who was, himself, the candidate of choice for the at-large seat in 2010 and the Kempsville seat in 2008.

In all, there were sixteen opportunities for a black candidate to win office between 2008-2018. In ten of these cases the black candidate was the candidate of choice for minority voters. Of the six who were not the candidate of choice, five ran against another black candidate and one lost to a popular incumbent. Ultimately, 7 of the 10 candidates of choice lost due to white bloc voting.

There were three elections featuring black candidates where a white candidate was a minority candidate of choice. Two of these elections were for at-large seats, where minority voters preferred one black and one white candidate for the two seats—Rouse (B) and White (W) in 2018, Jackson (B) and Bellitto (W) in 2010. The third white candidate of choice was longtime incumbent Barbara Henley who defeated the minority candidate of choice in 2010 and then became the minority candidate of choice in 2014.

Contrary to Dr. Kidd's analysis (based on a theory that minority cohesion requires 50% support), including white candidates of choice does not undermine the Gingles analysis. Indeed, of the 13 minority candidates of choice, white and black, eight lost their elections due to oppositional voting by white voters. In other words, minority-preferred candidates usually (61.5%) lost due to white bloc voting.⁸

My data

Source of CVAP

Dr. Kidd claims in footnote 4 on page 5 that "the dataset used by Spencer is provided by plaintiffs' expert witness Anthony E. Fairfax." This is incorrect. My analysis of racially polarized voting—homogeneous precinct analysis, ecological regression, and ecological inference—is based on Citizen Voting Age Population (CVAP) estimates at the block

⁸Note that even according to Dr. Kidd's own analysis, "when White candidates who were the preferred candidates of minority voters are considered...the number of African American-preferred candidates who won their races is seven of 17, including six of seven since 2012." Kidd Report, p. 5. Taking this statement at face value, ten of 17 minority-preferred candidates, including white candidates, lost their race. In other words, even according to Dr. Kidd, minority-preferred candidates "usually" lose their election due to white bloc voting.

Douglas M. Spencer

August 26, 2019

group level that I downloaded directly from the Census. Confusion on this issue likely stems from my reference to “census blocks” (as opposed to “block groups”) in Appendix A. Dr. Kidd should have had access to the data that I used, which were provided to counsel for defendants as well as step-by-step documentation for downloading the data and merging them to precinct shapefiles.

Precinct files

Dr. Kidd claims in footnote 5 on page 5 that “Spencer has maintained the same 94 precinct configurations from 2008 throughout his analysis, taking no account of the newly drawn (or redrawn or newly created) precincts and the new voters in those precincts.” This is also incorrect. My analysis of the 2018 election was based on election returns and CVAP data for all 100 (current) precincts in Virginia Beach. These data were disclosed in the file “cvap2018.csv.” Dr. Kidd cites to this file in footnote 18 of his report. Unfortunately, I was unable to locate a shapefile for 2016, when the City increased the number of precincts from 94 to 98. I contacted the Virginia Beach Center for Geospatial Information Services about this file in July 2018. On Sept. 26, 2018 I received an e-mail from Ms. Nina Gilbert of the Virginia Beach Center for GIS informing me (in response to my query) that the City does not “keep the previous year on the voting changes due to the fact that a third party makes those decisions.” Ms. Gilbert directed me to the Census TIGER/Line VTD files, which I used for my analysis. See Appendix A. The Census files provided me with all relevant precincts from 2008-2014. My analysis in 2016 drops the four precincts for which I am unable to merge in CVAP data because the precinct file is not available.

At-large elections in 2018 and 2014

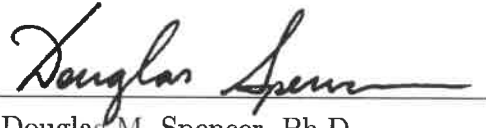
Dr. Kidd is correct that my vote totals for at-large seats in 2018 and 2014 (but not 2010) sum to 100% when they should sum to 200%. This was a simple error with no effect on my conclusions as the transformation applies to all estimates for all candidates. Although all estimates—homogeneous precincts, ecological regression, and ecological inference—should be doubled, the relationship between candidates remains unchanged. The updated numbers for the 2018 and 2014 at-large election seats are reported in Appendix B.

Douglas M. Spencer

August 26, 2019

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Date: August 26, 2019

A handwritten signature in black ink, appearing to read "Douglas Spencer", written over a horizontal line.

Douglas M. Spencer, Ph.D.
Professor of Law & Public Policy
University of Connecticut

Douglas M. Spencer

August 26, 2019

Appendix A

Correspondence with Virginia Beach Center for GIS

<https://outlook.office.com/mail/search/id/AAQkADFIM2RjNT...>

Re: Question

Douglas Spencer

Wed 9/26/2018 3:27 PM

To: Nina L. Gilbert <NGilbert@vbgov.com>

Nina --

I appreciate you following up with me on this. TIGER/Line has VTD shapefiles for 2008-2014, but for some reason they don't have the 2016 file. Oh well, it could be a timing thing and they are still updating their database (they don't have 2018 either, but that is available through gis.vbgov).

In any case, I really appreciate your effort. And I'll keep digging around as well.

All the best,
Doug



Douglas M. Spencer
Visiting Professor, 2018-2019
Harris Public Policy
University of Chicago
(415) 335-9698 | www.dougspencer.org

Social Impact, Down to a Science.

From: Nina L. Gilbert <NGilbert@vbgov.com>
Sent: Wednesday, September 26, 2018 3:04:54 PM
To: Douglas Spencer
Subject: RE: Question

Doug, I just found out that we don't keep the previous year on the voting changes due to the fact that a third party makes those decision. However I came across a link that may help you out. Sorry for the delay in founding this answer out for you. Please try the link and let me know if it helped you out any. Have a great day. Nina

<https://catalog.data.gov/dataset/tiger-line-shapefile-2014-county-virginia-beach-city-va-all-roads-county-based-shapefile/resource/49fa6da4-63b4-4e6d-9020-475371a85466>

Nina L. Gilbert, GISP

2405 Courthouse Dr.
Virginia Beach, Va. 23456
Office: (757) 385-1820
Fax: (757) 385-8482
ngilbert@vbgov.com

From: Douglas Spencer [<mailto:dougspencer@uchicago.edu>]
Sent: Monday, September 24, 2018 10:48 AM
To: Nina L. Gilbert

Douglas M. Spencer

August 26, 2019

Appendix B

Updated At-Large Election Estimates

Candidate (incumbent [†])	Overall vote		HP	ER	EI	Won election?	Minority cand. of choice	Minority % ↑ winner?
2018	Rouse	Black	68.8	82.3*	73.7		✓	
		All Minority	72.1*	70.4*	65.9	✓	✓	
		White	55.1	47.0	48.9			
	Moss [†]	Black	20.4*	0.0*	0.0*			
		All Minority	20.7*	6.6*	7.8*	✓		
		White	53.2	62.2	62.0			
	Oliver	Black	35.2	18.3	14.1			
		All Minority	33.9	28.6	28.3			
		White	50.9	52.0	52.2			
	White	Black	45.1*	69.6*	70.2*		✓	✓
		All Minority	42.5*	52.8*	52.0*		✓	✓
		White	19.3	16.3	16.7			
2014	Bright	Black	22.9*	38.9*	45.9*			
		All Minority	23.3*	32.0*	33.1*			
		White	12.3	11.8	11.5			
	Hubbard	Black	7.5	8.4	4.6			
		All Minority	7.6	9.6	8.1			
		White	9.2	10.7	11.7			
	Davenport	Black	100.0	100.0*	99.6*		✓	
		All Minority	93.2	90.7*	91.3*	✓		
		White	64.0	56.0	56.6			
	Moss [†]	Black	44.6*	27.4*	27.6*			
		All Minority	49.2*	42.0*	42.3*	✓		
		White	70.5	73.0	73.1			
	Martin	Black	30.1	16.8*	22.0*			
		All Minority	33.7*	33.6*	37.8*			
		White	54.1	59.8	58.4			
	Furman	Black	21.6*	37.7*	46.0*			
		All Minority	22.4*	31.1*	32.7*			
		White	10.6	10.5	10.3			

* $p < 0.05$ (minority vs. white support). Candidates of color highlighted by red text.

Douglas M. Spencer

August 26, 2019

Appendix C

2018 Election Performance in Illustration Districts 1 and 2

Year	Candidate	At-large		District 1		District 2	
		Total votes	Win election?	Total votes	Win election?	Total votes	Win election?
2018	Rouse*	54.5	✓	61.1	✓	59.2	✓
2018	Moss	45.3	✓	33.5		37.5	
2018	Oliver	45.2		40.6	✓	45.2	✓
2018	White	27.4		35.0		31.7	
2018	Bright*	17.7		20.5		19.4	
2018	Hubbard	10.1		10.2		10.3	

Table 2: Estimated vote shares for 2018 at-large election. Actual election returns are reported as “At-large” total votes. Shaded rows indicate the black candidate of choice. * indicates minority candidate. Although the losing candidate of choice (Allison White) would not have won in either District 1 or District 2, her margin of defeat would shrink from 18% to just 5.6% in District 1 and 13.5% in District 2. Furthermore, minority candidates preferred Dee Oliver over the incumbent John Moss by a three-to-one margin, yet Moss won re-election. In Districts 1 and 2, Ms. Oliver would have won a seat on the City Council instead.

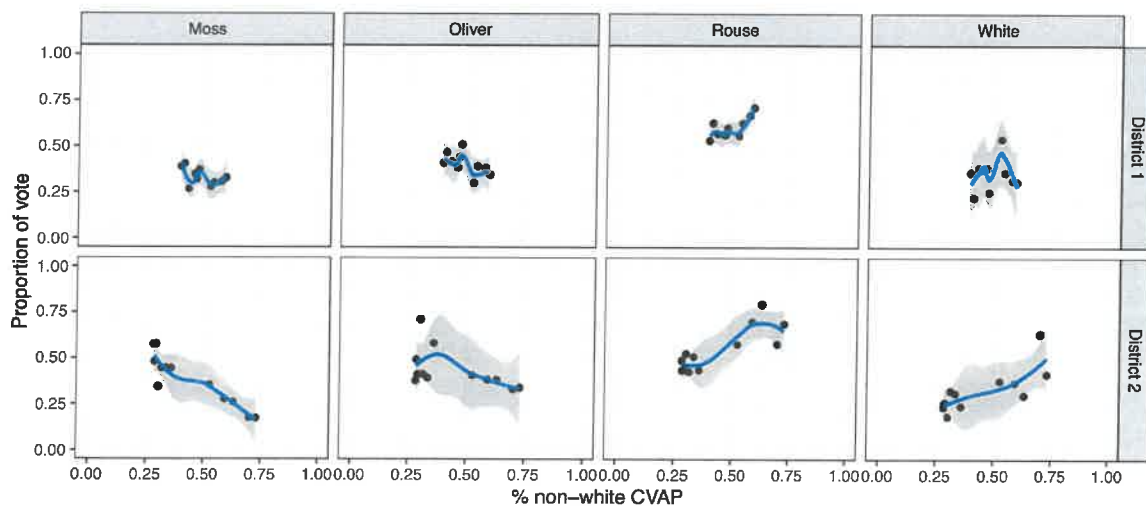


Figure 1: Precinct-level election returns for top four candidates in the 2018 at-large election. Although Mr. Moss and Mr. Rouse would face racially polarized voting in a hypothetical matchup in District 2, the election preferences of white and minority voters is statistically indistinguishable or not substantively significant for all other hypothetical elections in both districts.



IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA

LATASHA HOLLOWAY and
GEORGIA ALLEN,

Plaintiffs,

v.

No. 2:18-CV-00069

CITY OF VIRGINIA BEACH, et al.,

Defendants;

PLAINTIFFS' EXPERT WITNESS DISCLOSURES

Pursuant to the scheduling order entered by this Court and Rule 26(a)(2) of Federal Rules of Civil Procedure, Plaintiffs identify the following expert witnesses:

1. Dr. Douglas M. Spencer
University of Connecticut School of Law
55 Elizabeth Street
Hartford, CT 06105
(860) 570-5437

Dr. Douglas Spencer is a professor with appointments in both the law school and department of public policy. His research interests include the empirical study of public law, campaign finance, voting rights (including racially polarized voting), and election administration.

Further details regarding Dr. Spencer's areas of expertise are available here:

<https://www.law.uconn.edu/faculty/profiles/douglas-m-spencer>

2. Mr. Anthony E. Fairfax
Census Channel LLC
16 Castle Haven Road
Hampton, VA 23666
(757) 838-3881

Mr. Fairfax is a Demographic Consultant and President of CensusChannel LLC. For over 20 years, Mr. Fairfax worked as a demographic data & mapping consultant. Specializing in

redistricting, he has personally developed hundreds of redistricting plans covering 22 different states. Further details of Mr. Fairfax's areas of expertise are detailed here:

<http://censuschannel.net/cc/about-2/anthony-e-fairfax>

3. Dr. Allan J. Lichtman
9219 Villa Drive
Bethesda, MD 20817
(202) 885-2411

Dr. Lichtman is a Distinguished Professor of History at American University in Washington, DC. Allan J. Lichtman received his PhD from Harvard University in 1973 with a specialty in modern American history and quantitative methods. He has been an expert witness in more than 75 civil and voting rights cases, and has testified as an expert on racially polarized voting, totality of circumstances, discriminatory intent, and other topics relevant in voting rights cases. Further details of Dr. Lichtman's expertise are available here:

<https://www.american.edu/cas/faculty/lichtman.cfm>

Respectfully submitted,

/s/ J. Gerald Hebert
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*Licensed to practice in Florida only; supervised by
a member of the DC Bar

+Pro hac vice application pending before the Court

CERTIFICATE OF SERVICE

I hereby certify that, on June 14, 2019, I served a copy of the foregoing PLAINTIFFS' EXPERT WITNESS DISCLOSURES upon counsel of record for Defendant City of Virginia Beach by electronic mail.

Mark D. Stiles (VSB No. 30683)
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/s/ Danielle Lang
Attorney for Plaintiffs

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Office: Hosmer 312

Scholarship

Courses Taught:

Constitutional Law

Election Law

Douglas Spencer is a professor with appointments in both the law school and the department of public policy. His research interests include the empirical study of public law, campaign finance, voting rights, and election administration. He teaches Constitutional Law, Election Law, and the Introduction to Public Policy course in the Master of Public Administration program at UConn.

Professor Spencer's research has been published, or is forthcoming, in the *Columbia Law Review*, *California Law Review*, *Indiana Law Journal*, *University of Illinois Law Review*, *Journal of Law & Courts*, and the *Election Law Journal*. His work has also been featured in *The New York Times*, *Wall Street Journal*, *Slate* and other media outlets.

Professor Spencer was a clerk at the Lawyers' Committee for Civil Rights in San Francisco, and worked at the U.S. Department of the Interior and the International Finance Corporation of the World Bank Group in Washington, DC. In 2005 he was an election monitor for the Thailand national parliamentary elections and later worked as a non-resident researcher for the Pew Center on the States' Military and Overseas Voting Reform Project.

Professor Spencer holds a Ph.D. in Jurisprudence and Social Policy from the University of California, Berkeley, a J.D. from Berkeley Law, an M.P.P. from UC Berkeley's Goldman School of Public Policy, and a B.A. degree in Philosophy from Columbia University.

Representative Works:

Douglas M. Spencer & Christopher S. Elmendorf, *Administering Section 2 of the VRA After Shelby County*, 115 Colum. L. Rev. 2143 (2015)

Douglas M. Spencer & Gabriel J. Chin, *Did Multicultural America Result From a Mistake? The 1965 Immigration Act and Evidence From Roll Call Votes*, 2015 U. Ill. L. Rev. 1239 (2015).

Douglas M. Spencer & Christopher S. Elmendorf, *The Geography of Racial Stereotyping: Evidence and Implications for VRA "Preclearance" After Shelby County* 102 Cal. L. Rev. 1123 (2014)

Douglas M. Spencer & Sean Farhang, *Legislating Incentives for Attorney Representation in Civil Rights Litigation*, 2 J.L. & Courts 241 (2014)

Douglas M. Spencer & Abby K. Wood, *Citizens United, States Divided: An Empirical Analysis of Independent Political Spending*, 89 Ind. L.J. 315 (2014)

Douglas M. Spencer & Christopher S. Elmendorf, *Are Ballot Titles Biased? Partisanship in California's Supervision of Direct Democracy*, 3 U.C. Irvine L. Rev. 2013

Douglas M. Spencer & Zachary S. Markovits, *Long Lines at Polling Stations? Observations from an Election Day Field Study*, 9 Election Law Journal 3 (2010)

Recent In The Media

Douglas M. Spencer in *Hearst Newspapers*: U.S. Supreme Court asked to rule on Stratford House election (*Aug 7, 2019*)

Douglas M. Spencer in *Washington Times*: Lawsuit wants FEC to take action against Pro-Clinton PAC (*Aug 5, 2019*)

Douglas M. Spencer in *BYURadio*: Felons Voting. Pilot Fatigue, Brand Me (*Jun 12, 2019*)

Douglas M. Spencer in *Vox*: Can the president be prosecuted? I asked 16 legal experts. (*May 29, 2019*)

Douglas M. Spencer in *Vox*: Trump declared a national emergency at the border. I asked 11 experts if it's legal. (*Feb 15, 2019*)

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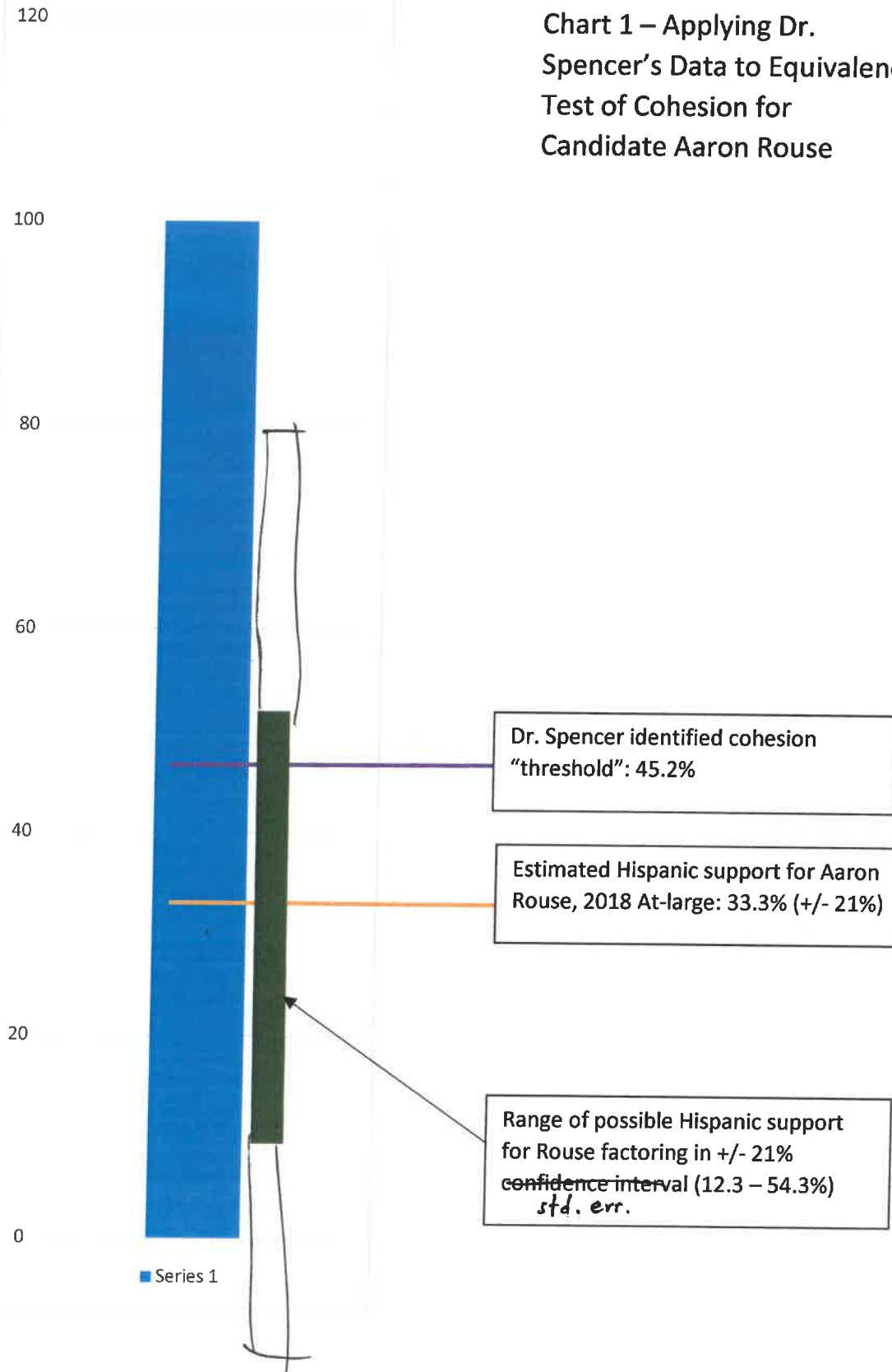
Year	Seat	Candidate	Threshold	Black		Hispanic		Asian		
				est.	se	est.	se	est.	se	
Minority Candidates										
2018	At-large	Rouse	45.2	83.0	6.4	33.3	21.0	53.0	15.2	
2018	Centerville	Wooten	62.1	90.3	14.9	79.9	25.1	73.4	18.4	
2016	Kempsville	Ross-Hammond	59.4	81.2	4.7	49.0	18.8	26.2	10.7	
2014	Rose Hall	Cabiness	48.3	70.2	4.5	13.0	11.0	9.4	7.4	
2012	Kempsville	Ross-Hammond	32.2	82.6	4.4	53.9	20.5	33.6	12.6	
2011	At-large	Sherrrod	37.0	90.2	4.3	49.5	22.0	27.2	12.7	
2010	At-large	Jackson	44.8	52.9	2.5	11.6	8.6	6.9	5.0	
2010	Princess Anne	Bullock	54.4	79.0	3.6	67.1	17.7	87.9	8.1	
2008	At-large	Allen	44.1	79.4	3.4	77.0	14.6	29.8	9.9	
2008	Kempsville	Flores	48.7	52.9	2.4	40.4	13.0	33.9	7.0	
White Candidates										
2018	At-large	White	45.2	61.1	10.7	53.3	40.4	19.6	20.4	
2014	Princess Anne	Henley	76.7	62.4	2.8	69.5	12.4	82.9	6.9	
2010	At-large	Bellitto	44.8	8.4	2.3	45.2	12.2	47.2	6.4	





Hispanic Voter Support for Aaron Rouse

Chart 1 – Applying Dr.
Spencer’s Data to Equivalence
Test of Cohesion for
Candidate Aaron Rouse





Hispanic Voter Support for Aaron Rouse

Chart 1 – Applying Dr.
Spencer’s Data to Equivalence
Test of Cohesion for
Candidate Aaron Rouse

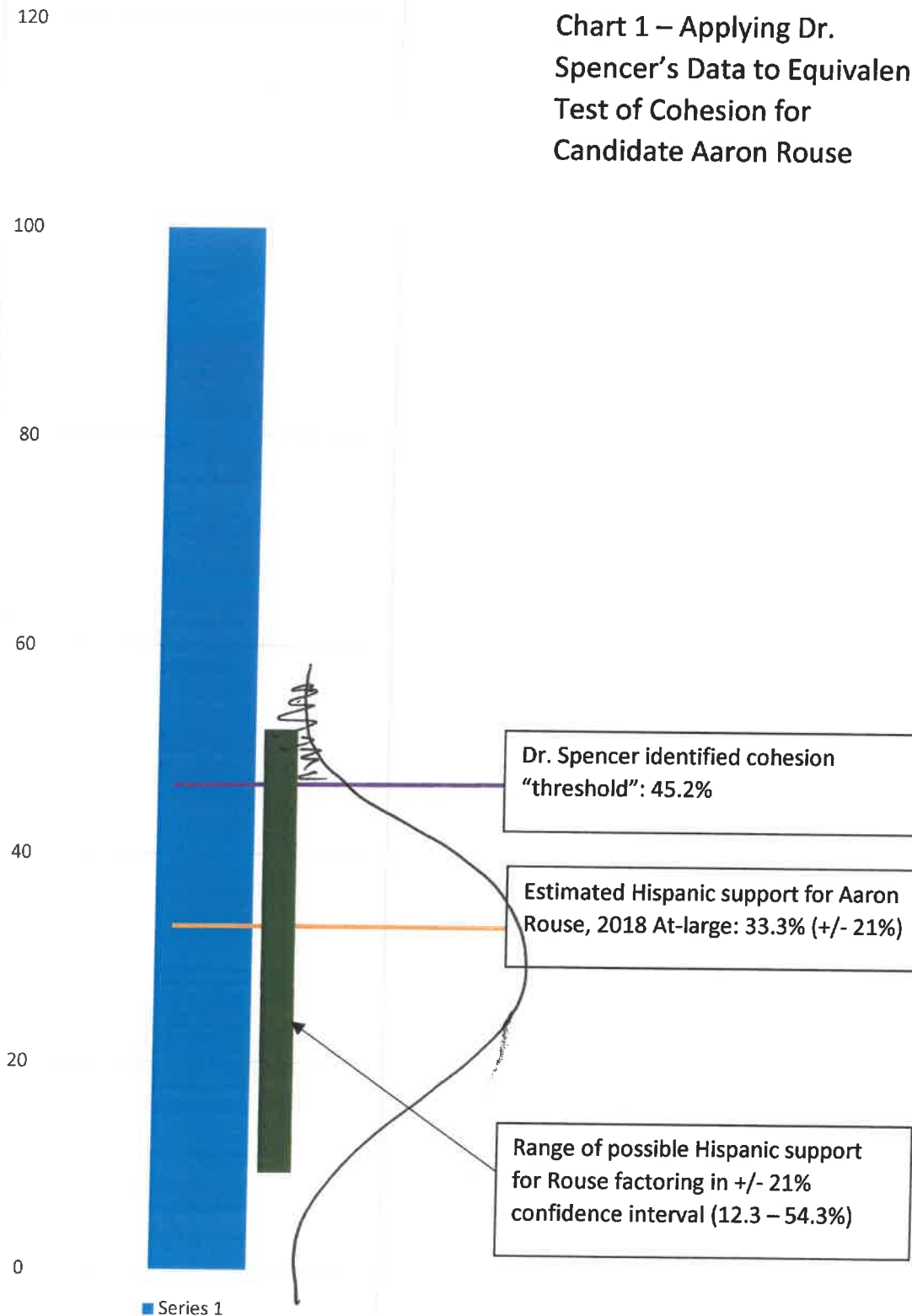




Chart 1. Spencer's Prong 2 and 3 Racially Polarized Voting Analysis (Rebuttal Report)

Year	Seat	Candidate	Threshold to win	Support above threshold			Minority preferred?	Won?
				Black	Hispanic range	Asian range		
Minority candidates								
2018	At-large	Rouse	45.2	✓	✓	✓	Y	Y
2018	Centerville	Wooten	62.1	✓	✓	✓	Y	Y
2016	Kempsville	Ross-Hammond	59.4	✓	✓	x	?	N
2014	Rose Hall	Cabiness	48.3	✓	x	x	N	N
2012	Kempsville	Ross-Hammond	32.2	✓	✓	✓	Y	Y
2011	At-large	Sherrod	37.0	✓	✓	✓	Y	N
2010	At-large	Jackson	44.8	✓	x	x	N	N
2010	Princess Anne	Bullock	54.4	✓	✓	✓	Y	N
2008	At-large	Allen	44.1	✓	✓	✓	Y	N
2008	Kempsville	Flores	48.7	✓	✓	✓	Y	N
White candidates								
2018	At-large	White	45.2	✓	✓	x	?	N
2014	Princess Anne	Henley	76.7	✓	✓	✓	Y	Y
2010	At-large	Bellitto	44.8	x	✓	✓	?	Y

Table 1: Summary of minority support for candidates in races where at least one candidate was nonwhite. Minority support sufficient to have elected a candidate in the absence of white bloc voting is marked with a ✓. Because the population of Hispanic and Asian CVAP prevents precise estimates of candidate preference, support is marked with a ✓ when the null hypothesis that candidates did not receive support sufficient to be elected in the absence of white bloc voting is rejected.

Chart 2. Spencer's Prong 2 Cohesiveness Analysis (Supplement to Rebuttal Report)

Year	Seat	Candidate	Threshold	Black		Hispanic		Asian	
				est.	se	est.	se	est.	se
Minority Candidates									
2018	At-large	Rouse	45.2	83.0	6.4	33.3	21.0	53.0	15.2
2018	Centerville	Wooten	62.1	90.3	14.9	79.9	25.1	73.4	18.4
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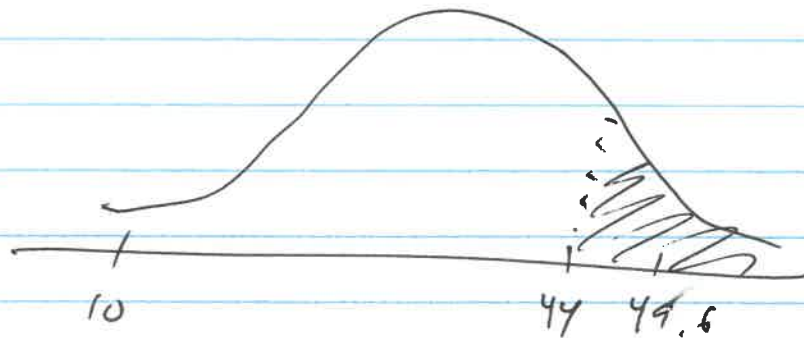


$$\begin{array}{r}
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 \end{array}$$

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 \end{array}$$

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